The heroes in Flood myths worldwide

Seeking to capture prehistoric modes of thought by means of quantitative contents analysis

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version 7 October 2010
draft: not for publication or published comment

1. Introduction and main line of the argument

1.1. Flood and hero – an intersection of central themes

The hero is a central theme in comparative mythology,[3] and so are Flood myths – one of the few mythemes that can boast a near-global distribution (cf. Figure 1).[4] My aim in this paper is to look at the intersection of these two themes, by considering the hero theme in Flood myths world-wide.

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[1] Partly due to pressure of time, and partly because of further thinking through of the systematics of flood myths, this is a somewhat different paper from the one I initially proposed for this meeting. I am grateful to the conference organisation, especially the convenor Michael Witzel, for graciously accommodating this change, and I apologise for any inconvenience it may have caused.

[2] I am indebted to the African Studies Centre, Leiden, for supporting the present research within the context of the Research Unit on Connections in African Knowledge, and for contributing to my trip to this conference; to the Department of the Philosophy of Man and Culture, Philosophical Faculty, Erasmus University Rotterdam, which formed a stimulating environment for my research on the global history of transcendence, of which the present argument is one instalment; moreover, to Michael Witzel, Stephen Oppenheimer, Steve Farmer, Emily Lyle, and Fred Woudhuizen, for illuminating criticism of earlier and related work.

[3] Dumézil 1965; de Vries 1978; Farnell 1921; Fontenrose 1980; Kerenyi 1978; Jung 1991; Lévi-Strauss 1968; Tegnaeus 1950; Okpewho 1981; Ford 2000.

[4] Frazer 1918; Dundes 1988; Witzel 2010.

1.2. Via statistics to prehistory

My method will be somewhat unusual in the circle of comparative mythologists: rather than a close-reading of a limited set of primary mythical texts gleaned from ancient literatures or from ethnographic accounts, I will consider a worldwide corpus of Flood myths,[5] standardised and summarised in a modern international language; the patterns I will discern in this material are informed not in the first place by an hermeneutical exercise based on extensive philological, literary-critical and ethnographic skills within a wider, intersubjective disciplinary domain – the method most of us used within the International Association for Comparative Mythology IACM – but they will be produced, blindly and indiscriminately, by statistical procedures, notably multivariate analysis and two-dimensional cross-tabulation.
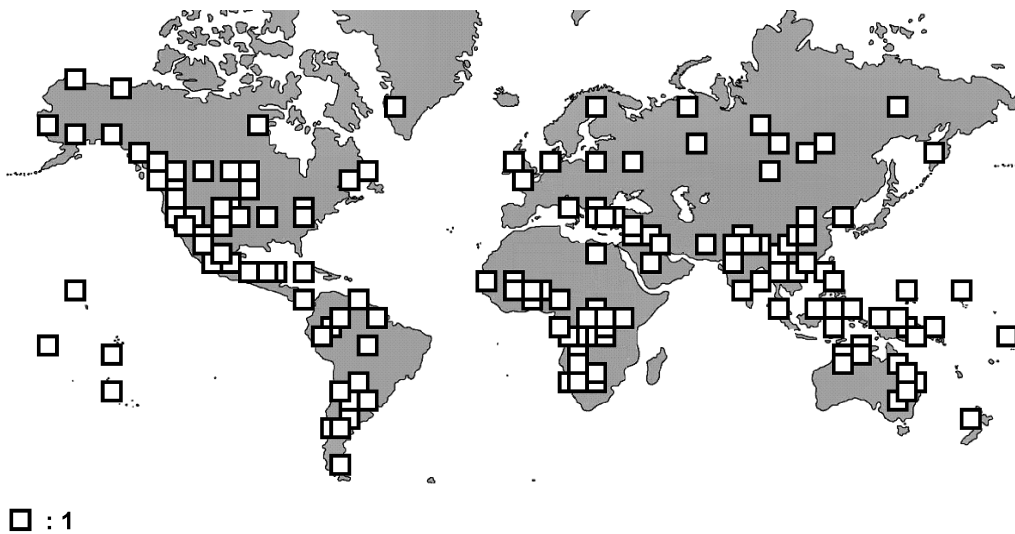

□ : 1

Fig. 1. Flood myth attested (=1) in historical times (all types and sources aggregated; sources include Frazer 1918; Dundes 1988; Isaak 2006).

Yet my claim will be that these patterns – once they are subsequently subjected to hermeneutical interpretation – afford us considerable glimpses of insight into prehistoric modes of thought, and in the development of such patterns over time. Not only will this throw additional light on Flood myths – it will also help us put the concept of the hero in perspective, both conceptually and across (pre-) history.

This paper could be read as consisting of a first section in which the gist of the argument is already delivered, followed by sections 2-5 which are really only elaborations (often methodological) of that overview. After introducing the data set, analysis and method, and indicating how I will apply the concept of the hero in the

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[5] This is the fully referenced collection compiled by Isaak 2006, and here gratefully acknowledged. My agreement with Mark Isaak has been to explicitly list him as collaborator to my first paper on this material (van Binsbergen _ Isaak 2008), after which I would be free to publish my subsequent results (although likewise based on his data) exclusively under my own name. Regrettably, Isaak's additions to his collection after 2006 could not be taken into account any more: the enormous investment of time and effort that went into data entry and statistical processing of the initial, 2006 data could be made only once.

context of Flood myths (section 2), I will proceed to situate Flood *heroes* within the total data set of Flood myths; this will be done by briefly looking at some aggregate results of multivariate analysis (section 3), in which the presence of a prehistoric transformative cycle of elements will be highlighted as an important background of that combat that gives the heroes their main narrative features. But as we shall see, for reasons of statistical methodology multivariate analysis can only capture a limited part of the information contained in the data set, and the remainder will be considered in Appendix 1: an overview of statistically significant associations found when cross-tabulating each hero-related variable against all non-hero-related variables. These numerous associations will have to be further sorted out and weeded out – preferably on the basis as such feedback as I hope to receive from the audience. Finally, the conclusion reiterates the main points in this summary.

1.3. Postulating a number of evolving modes of thought in prehistory

The discussion (section 5) will advance interpretations of the statistically significant patterns found, in the light of a limited number of mythemes that amount to evolving modes of thought in prehistory. Within the scope of the present argument, I cannot fully substantiate my claim that these four schematised 'modes of thought' are not just figments of my scholarly imagination, but – with all inevitable simplification and stancdardisation of such mythemes – demonstrably correspond with worldviews actually held by the ancient (pre-)historical actors.

1. the hypothesis of the existence of a major mytheme (in Upper Palaeolithic Eurasia) of the – essentially horizontalist – *Cosmogony of the Separation of Water and Land*; this cosmogony revolves on the image of the (inevitably virgin) Mother of the Water and her unique male child, Land, who is also to be her lover

   > This mytheme is unmistakably present in the oldest attested cosmogonies of the Ancient Near East, the Bible, Ancient Egypt, and has left many traces in Nordic, Uralic and other mythologies. However, when we encounter it, it is often only in conjunction with the next mytheme, which has superimposed itself upon it and has become dominant. In a recent study Emily Lyle (2010) has given what appears to be a related perspective on this mytheme, concentrating however when male hero and female Waters have already dissociated into enemies, and their earlier parental relationship is no longer conspicuous.

2. the hypothesis of the existence of a major mytheme (in Eurasia between the outgoing Upper Palaeolithic and the Neolithic) of the – essentially verticalist – *Cosmogony of the Separation of Heaven and Earth*

   > So conspicuous is this mytheme, that throughout the Old World (including much of Africa,[6] and with extension into Oceania) mythologies tend to present the separation of Heaven and Earth as the central cosmogonic act, necessary but traumatic, so that much mythological and ritual attention is paid to the problem as to how to reconnect Heaven and Earth: through natural and man-made devices (including altars and

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[6] In what could be considered (although I have rejected Witzel´s terminology as unjustifiably essentialising and dichotomizing) Northern, ´Laurasian´ imports into the Southern, ´pre-Laurasian domain´, cf. van Binsbergen 2010b.

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sacrifices, foodcrops, mountains and trees), through humans in particular roles (shaman, hero, king, twin, priest), and through demiurges, tricksters and demi-gods uniting celestial and terrestrial qualities.

3. the existence of a horizontalising *transformative cycle of 'elements'*, widely attested throughout the Old World (with likely extension into the Nearctic World), and amounting to an immanentalist, cyclical worldview of an *Ewigen Wiederkehr des Gleichen* (Nietzsche), where the ontological status of each form of being is merely ephemeral, fluent and transient, underneath of which undifferentiated and immutable primal matter perpetuates itself timelessly[7]

4. the emergence of a lineal and verticalising perspective on the world and humankind,
   o in which Heaven (as a distinct realm of existence, and as such not identical with the 'sky' over everyday experience) is invented,
   o in which also the possibility of an irrevocably, irreversibly *different* state of being than the here and now is contemplated,
   o firm and lasting absolute distinctions are becoming thinkable,
   o and with them transcendence,
   o the supernatural, and
   o the concept of history as we understand it today.

1.4. Detectable changes in human thought operations in the relatively recent past (< 30 KA BP)? Borean 'range semantics' and the excluded middle

At this point a digression is in order. Although the point is rarely considered in the context of comparative mythology,[8] we are *not* justified to assume that the logical toolbox of Anatomically Modern Humans has always been in place, throughout the 200 ka of their existence, in exactly the same way in which it presents itself in our own, modern North Atlantic / global specialist academic discourse – in our conference debates and publications. While we have some reason to assume

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[7] For extensive details, see van Binsbergen 2009b, 2010a.

[8] Or, if cursorily considered *within Comparative Mythology*, the usually unquestioned assumption is simply that the thought faculties of Anatomically Modern Humans have remained unchanged both in nature and in scope since our own human type emerged in Africa, 200 ka BP. An illuminating theoretical exploration of the personalising aspect of these thought structures, with much background literature but without going into periodisation, in Farmer 2010. The assumption of extreme immutability stands in great contrast with views circulating only a few decades ago, e.g. that the ´bicameral´ mind had only yielded modern thought processes notably a self-reflective identity, in the Late Bronze Age (cf. Jaynes 1990-1974; Vroon 1992 – often in consideration of what literacy does with thought processes); or the notion of the *Human Revolution*, much discussed in the 1980s prior to the shift to the Out-of-Africa hypothesis as a breaking point, c. 40 ka BP, when Humans (with an emphasis on Western Eurasia) were thought to have acquired faculties of symbolic thought and wider group processes. These presentist, myopic and potentially Eurocentric approaches find few supporters today, now that the long-range prehistoric study of the human mind has developed into a sub-discipline of its own (Mithen 1996; Renfrew & Zubrow 1994; Mellars & Gibson 1996). An important consideration is that minds capable of symbolic thought and of articulate language do not drop from heaven lock, stock and barrel, but must be understood as having emerged in association with crucial social-organisational, economic and ecological processes – such as palaeoanthropological archaeologists are now perceiving, with ever more detail, to have taken place since c. 200 ka BP in Africa, and from c. 50 ka BP also in other continents.

- that the capability for language and logic is innate in our variety of humans (Chomsky 1965), and

- that present-day structures of natural language and practical reasoning, however variable, yet remain within a recognisable range to which also the expressions of the first Anatomically Modern Humans belonged 200 ka BP

yet it is quite likely that these logical capabilities have a history, and that much of that historical process took its course not before, but *during* the 200 ka of Anatomically Modern Humans' existence. Let us concentrate on one very crucial thought procedure: the Aristotelian[9] logical principle of the excluded middle *('P $\lor$ ¬P': 'either P or not P')*. The tendency towards blurred distinctions and to violate the logical principle in question is typical of much natural language use in most non-specialist conditions, not only in historic, pre-industrial rural societies but also in North Atlantic everyday life. To account for this widespread violation of specialist logic, the analyst has a choice between

- *Lévi-Strauss's arch-rationalism* (for Lévi-Strauss, 'savage' thought, i.e. non-specialist 'natural thought',[10] makes *different* distinctions from those made in modern North Atlantic specialist science – yet it thrives on these very distinctions, to such an extent that this theoretician can declare the binary oppositions out of which such distinction consist the very backbone human culture; he thus insists on the human's quality as a rational animal in the best French tradition ever since Descartes (and mediated in anthropology via Lévi-Strauss' intellectual forebears Durkheim and Mauss, as well as de Saussure), or, as a radical alternative,

- *Derrida's recognition of the condition that every distinction necessarily carries within itself its own negation*, so that the Aristotelian principle of the excluded middle becomes an peripheral, artificial stipulation merely for abstruse specialist language games, rather than a true reflection of common human thought.

Recent long-range linguistics has offered us one context in which these theoretical ideas may be given, albeit most tentatively, a historical dimension.[11] This is the detailed reconstruction of the lexicon of *Borean (Fleming 1991, 2002; Starostin & Starostin 1998-2008), a hypothetical language construct associated with Central Eurasia and the Upper Palaeolithic, and argued to have left substantial traces in practically every linguistic macrophylum spoken today. Elsewhere (van Binsbergen & Woudhuizen, in press; van Binsbergen 2010b) I have considered the reconstructed *Borean lexicon in some detail, and I argue that instead of firm binary semantic distinctions it seems to operate on the basis of what could be called 'range semantics'.

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[9] Aristotle, *Metaphyica 2*, 996b 26–30, and *7*, 1011b 26–27; idem, *De Interpretatione*, c. 9.

[10] This expression is merely to be understood by analogy with the common expression 'natural language'.

[11] A complementary approach I have already suggested in my writings (van Binsbergen 2006a, 2006b, summarised in c.s. 2008 and in 2010) on the Aggregative Diachronic Model of Global Mythology: here I group the emergence of specific Narrative Complexes ('NarComs') before and after the Out-of-Africa Exodus (c. 50 ka BP) around less than a dozen so-called 'Contexts of Intensified Transformation and Innovation' (CITIs), *i.e.* specific complexes that (through analysis of linguistic material, modes-of-production, archaeology, iconography, and hermeneutical analysis of the logical and modes-of-production implications contained in surviving mythical texts) can be most provisionally identified in space and time, in such a way that each NarCom, and *a fortiori* each CITI, appears to constitute a specific innovation in the logical field: identity, distinction, duality, synthesis, etc.

A particular lexical root may indicate not so much either 'wet' or 'dry', 'penis' or 'vulva', 'dark' or 'light', but *any* specific variable value in the ranges 'degree of wetness / dryness', 'genital of either genders', 'degree of lightness / darkness'. *Firm, sustained, consistent, absolute* logical distinctions would thus appear to be post-*Borean, and while their emergence and installation, ultimately to become standard, should in the first place be regarded as a result of intensified use of articulate language[12] (and the socio-organisational, productive and ritual practices facilitated by, and engendering, articulate language) since the Upper Palaeolithic. It might then be correct to say that the subsequent, increasing dominance of such binary distinctions in human culture was largely brought about by the pivotal role of increasingly precise and technical language in the context of the *post-Neolithic package of writing, the state, proto-science, and organised religion.*

WATER		INTERMEDIATE (note: a vessel is solid, contains fluid		LAND	
				*CVCV₁,₂,₃	dry, stone, tip, spout
*CVKV	bird			*CVKV₁,₂	hard, stand
		*CVLV₁,₂	fish trap, fence, slime, dirt	*CVLV	steppe, valley, meadow
*CVLV	water, pour				
*CVMV₁,₂	a kind of bird; fish			*CVMV	marsh, uncultivated land
				*CVNV	stone, mountain
*CVPV	to sink				
*CVRV	to flow, drip			*CVRV₁,₂,₃	dirt, to dry, to stand
*CVTV	drink, liquid				
*CVWV₁,₂	liquid, sea, water				
				*HVHV	to stand up, move upwards
*HVKV	water				
*HVLV	wet				
				*HVMCV	stone
				*HVMGV	dirt, earth?
*HVMV	drink, swallow				
				*HVNLV	stone
*HVNV	water				
*HVRCV	rain, pour				
*HVRV	liquid			*HVRV	stone
*HVWV₁,₂	bird; stream, flow of water				
*JVMV	sea, water				
				*JVNV	to live, stand
				*KVCV₁,₂	dry, sand
*KVHNV?	water				
				*KVKV	dry
*KVLV₁,₂,₃	a kind of bird; big fish; pond	*KVLV	walk, roam, ford; vessel	*KVLV₁,₂,₃	dry, burn, stone, rock, valley
*KVMCV	a kind of fish				
*KVMV	a kind of bird			*KVMV₁,₂	dry, hard
				*KVNTV	corner, enclosure?

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[12] Articulate language can be claimed to have been humans' principal context for learning to generate and to handle immensely subtle and complex distinctions – by the phonological principle of *distinctive features (*Jakobson *et al.* 1952), the distinction and use of phonemes and other language elements entirely depends on the dextrous management of binary oppositions.

*KVNV	a kind of bird			*KVNV$_{1,2}$	burn, roast, dry, hill
*KVPV	a kind of bird				
				*KVRTV	enclosure
*KVRV$_{1,2,3}$	a kind of fish; a kind of gallinacean bird; crane			*KVRV$_{1,2,34}$	dry, dung, mud; enclosure; mountain, hill
*KVTV$_{1?,2}$	water, to submerge; a kind of bird			*KVTV	dirt
				*KVWV	stone, mountain
*LVJV	liquid, flow				
*LVKV$_{1,2}$	a kind of bird; goose	*LVKV	pool, low ground	*LVKV	dirt
*LVLV	boat				
*LVMV$_{1,2}$	large fish				
		*LVMV	swamp (land / water)		
*LVNV	to wash, pour			*LVNV	stone
*LVPV	soft, wet				
*LVTV	liquid				
*LVWV	to pour				
*MVCKV	wash				
*	wet				
				*MVLV	mountain
*MVRV	wet				
*MVTV	moisture				
MVWV	water, wet				
				*NVHV	to stay, be, stand
*NVNV	a kind of fish				
*NVRV	flow				
*PVCV	sprinkle				
*PVHV$_{1,2}$	bird, fly; to pour			*PVHV	hill, rock
*PVKV	to pour, wash			*PVKV$_{1,2}$	dust, dirt; hard, firm
				*PVLV$_{1,2}$	ashes, dirt; mountain, hill
				*PVMV	earth, mound
*PVNV	water			*PVNV$_{1,2}$	clay, mud; stone
				*PVRV	mountain, top
				*PVTV	ashes, burn
				*RVMCV	stone
				*RVNKV	dry
				*RVPV	stand
*SVKV	a kind of bird				
*TVHV	spit, spittle			*TVHV$_{1,2,3}$	bottom; earth; stone
*TVKV$_{1,2,3}$	a kind of duck or hen; fish; to pour, drop	*TVKV$_{1,2,3}$	vessel, boat; vessel, to scoop; water, pond	*TVKV$_{1,2}$	earth; mountain, high
				*TVLV$_{1,2}$	hill; stone
*TVNV$_{1,2}$	pot, vessel; to melt, flow			*TVNV	top
				*TVPV	hill
*TVRV$_{1,2}$	a kind of bird; to drink, flow			*TVRV$_{1,2}$	earth, dust; enclosure, yard
				*TVTV	dust, ashes
				*WVCV	enclosure
				*WVRV	mountain
*WVTV	water				

Cells with a grey background present the isolated words, *i.e.* those that are not paired with an opposite or intermediate form displaying the same consonantal structure. The subscripts indicate a plurality of otherwise indistinguishable reconstructed *Borean words with the specified consonantal structure.

*Table 1. *Borean reconstructed words of dryness and wetness*

dry	swamp, marshland	wet
$*KV_{n...n+4}LV_{n...n+4}$ 'dry, burn; stone, rock; valley'	$*KV_{n...n+2}LV_{n...n+2}$ 'walk, roam, ford'	$*KV_{n...n+2}LV_{n...n+2}$ 'a kind of bird; big fish; pond'
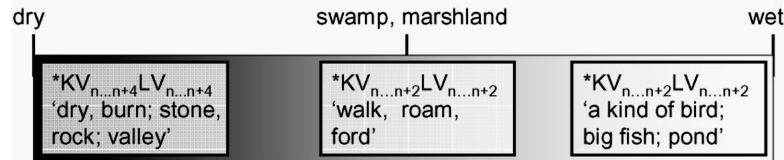
where $-9 \leq n \leq 1$: the number of different vowels involved in these 10 reconstructed *Borean words of the general form *KVLV is minimum 1 and maximum 10. For each of the dry, intermediate and wet clusters, n is to be determined in the same way. Note in many ancient cosmologies, birds are regarded as 'fishes of the waters above'

*Fig. 2. The semantic field of the cluster of *Borean words* $*KV_{n...n+10}LV_{n...n+10}$

For my present argument this is an important point: the ancient and widespread *transformative cycle of elements* to which I will repeatedly appeal below, *can be considered a transitional thought technique to be situated somewhere between*

- *Borean blurred range semantics, and
- modern absolute binary distinctions.

Whereas the transformative cycle is inherently immanentalist and cannot appeal to some ulterior, external principle outside it, the proposed historical process through which (a) the transformative cycle (with its cyclical ontology of ephemeral phases systematically giving way to one another) was supplanted by (b) absolute binary distinctions, also means *the invention of transcendence* – without which the notion of 'Heaven', morality, truth, and the Supreme God would be unthinkable. There is nothing more transcendent that writing, which creates a virtual but viable and increasingly decisive world that is in principle away from the here and now. For good reasons (although perhaps regionally chauvinistic and myopic; cf. China, Meso-America), comparative religionists have situated the emergence of organised religion in Neolithic and Early Bronze Age Ancient Near East including Egypt, where a literate theocratic and proto-scientific priestly class formed the backbone both of the early state and of a temple-based economy.

1.5. Introducing Noah as a Flood hero

In the light of these considerations we may begin to consider Noah, the hero *par excellence* (but with many cognates world-wide) of the Standard Elaborate Flood Myth (shortly to be characterised in detail),

- not as a static mythological given,
- but as the thought-provoking end of a long development towards transcendence, morality, the invention of Heaven and of a Supreme God, and a linear and unique and dramatic (in other words, heroic!) conception of events and of the human condition (in other words: the emergence of the notion of history), on the basis of earlier, more immanentalist and cyclical modes of

thought whose outlines we may increasingly discern.[13]

all this against the background of recent and largely converging insights[14] in the prehistoric emergence and unfolding – mainly in Eurasia from the Middle Palaeolithic to the Bronze Age – of a limited number of specific mythological themes. In the specific theoretical perspective that I have developed in recent years under the admittedly stilted title 'Aggregative Diachronic Model of Global Mythology', I recognise a few dozen of Narrative Complexes (NarComs), to be conceived as transformation and innovations of the original, and to some extent reconstructible, mythological contents of *Pandora's Box* (i.e. the common cultural package that Anatomically Modern Humans built up within the African continent between c. 200 and c. 50 ka BP, and with which they left for other continents in the context of the Out-of-Africa Exodus, c. 50 ka BP).[15]

As my contribution to the section on Hero myths, of the 4th Annual Meeting of the International Association for Comparative Mythology, I will argue that Flood heroes are not necessarily what they appear: fully-fledged individuals conceived after the heroic pattern of West-Asian/Mediterranean Antiquity and considerably transformed (in terms of personhood, agency, and morality) and North Atlantic modernity. In passing, I will begin to suggest

- in what sort of historic constellation (in terms of thought mechanisms, modes of production, variety of religious forms in terms of immanentalism or transcendentalism) we can expect to encounter such fully-fledged hero myths at all –
- in such a way that such hero myths may be considered the relatively recent end products of a mythological, and in general socio-cultural and conceptual, development which, in earlier phases, may be thought of as having engendred prototypes from which our heroes could be argued to have evolved.

A worldview that puts a low premium on personhood and distinction, that knows no linear history but insteads conceives all events as interchangeable steps in an endless, circular, repetition, that knows no morality, no transcendence and no gods, let alone a Supreme God, simply cannot produce hero myths.[16]

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[13] In a way, this argument continues an approach which I first pioneered in my *Religious change in Zambia* (1981), which, beyond its inevitably regional empirical focus, was essentially a statement on a materialist theory of religion from the perspective of modes-of-production analysis.

[14] Cf. Witzel 2010 and in press; Berezkin 2008, 2009, 2010; van Binsbergen 2006a, 2006b, 2010b.

[15] Specialists' estimates of the time spans involved are subject to constant change. At present, the date of c. 50 ka BP appears to reflect specialist majority views as vented at the Radcliffe conference on Comparative Mythology, Harvard, October 2010.

[16] Over the past near-decade, and instigated in the first place by Michael Witzel's (2001) seminal explorations in this direction, he and I have engaged in an exchange on the broad general trends in the global development of mythology since the emergence of Anatomically Modern Humans. Although we continue to somewhat disagree (van Binsbergen 2010b; Witzel 2010) in our appreciation of the difference, periodisation, interpenetration, and mutual indebtedness between a Northern (in Witzel's terms, 'Laurasian') and a Southern (in Witzel's terms, 'Gondwana'), Witzel's emphasis on the historical and person-centred nature of the Northern trend (primarily Eurasian, and reflected in the literate mythologies of the Ancient Near East, South and East Asia, the Ancient Mediterranean and the Iron-Age Northern Europe) is very well-taken: it makes possible a mythology of *exalted persons in*

Yet, as far as Flood myths go, the type of the Noahic flood hero is widespread, and by no means limited to the Ancient Near East. The Noahic model posits the image of

- a righteous male
- who is forewarned of the Flood by the Supreme God as his ally,
- and who therefore manages to survive the Flood
- in a specially constructed vessel (an Ark) as the ultimate Flood hero,
- and to repopulate the devastated earth in the course of some sort of Second Creation,
- where Heaven and Earth (collapsed in the cataclysm – when they sky could no longer contain the Waters Above and also the underworld opened its Waters Below) are re-connected once more (through the rainbow, sacrifice, divine election, priesthood, food crops including the vine, the Tower, by the very air),
- sexuality
- and the handling of fire are resumed once more,
- and animals find themselves put under the salutary patronage of the heroic human;
- also post-Flood repopulation is mythically presented as the beginning of human ethnico-linguistic diversity.

This 'Elaborate Standard Flood Myth', as I have called it, is remarkably widespread world-wide. Although some of that distribution must be due to contamination[17] as a result of the worldwide expansion of three world religions (Judaism, Christianity and Islam – all of which feature Noah-Nūḥ as a central figure), for reasons of historical analysis as well as statistical distribution patterns[18] it is likely that most of that global distribution is not due to contamination but reflects a widespread substrate which has produced, as a relative late and highly evolved variant, the Noahic variant among others.[19]

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time – in other words of heroes and kings, in ways that a more cyclical, a-historical cosmology could never yield.

[17] A point repeatedly, and rightly, made by Steve Farmer, first in plenary discussion during the founding meeting of the IACM in Beijing 2006, and taken care of in the present statistical analysis by the control variable CONTAMIN, see next footnote.

[18] See my discussion of the constructed variable CONTRAMIN in van Binsbergen c.s. 2008.

[19] Much more could be said, and has been said, about Noah in this connection. Although typologically the Noah of the Elaborate Standard Flood myth is clearly an advanced type of Flood hero, for the systematic reasons given in the main text, I have elsewhere (van Binsbergen c.s. 2008, and much more elaborately van Binsbergen & Woudhuizen, in press) argued the great antiquity of the name and some of the characteristics of Noah. The connotations of whiteness that surround him identify as another 'White God' of Creation or Second Creation – belonging to a large and widespread class of ancient primal gods, all associated with the colour white (e.g. Heimdall, Poseidon, Shiva, Virococha, etc. etc.), and nearly all supplanted and reduced to subordinate status in the pantheon, with the rise of new celestial male gods, such as Yahweh, Zeus, etc. (Fig. 3) Moreover, nearly a dozen (cognates of) the name Noah, with cognate connotations including those of Flood heroes, can be found throughout the Old World and the Nearctic, e.g. the South Chinese Flood heroine Nü Wa. Finally, etymological explorations into the names of Noah and his main three sons suggest him to represent the primordial matrix ('Chaos') out of which Day and Night (Japheth 'openness' and Ham 'darkness') were separated – or by a slightly different etymology, Heaven (the open sky) and Earth (the dark land) – another reason to see him as a primal but supplanted cosmogonic god – originally not necessarily male – of an earlier dispensation, upon which only secondarily the subaltern relationship with a Supreme God and
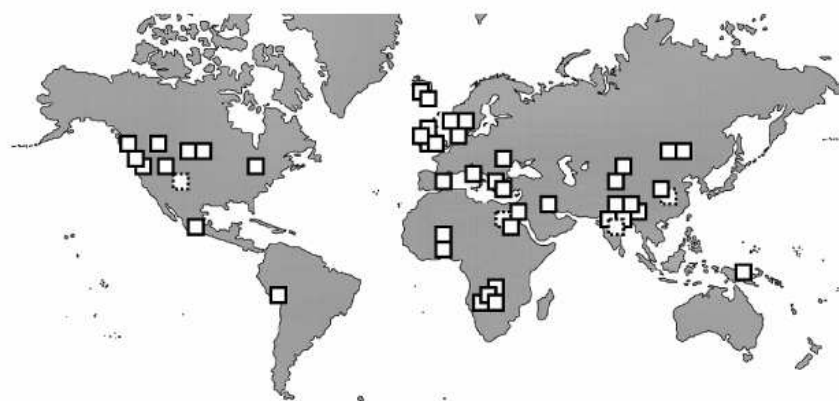
□ : 1 ; ⬚ : 2

1. Attestation of the idea of the lowly pigmented, giant god of creation or second creation (after disaster);
2. uncertain attestation.

Fig. 3. Global distribution of attestations of the White God of Creation or Second Creation

However, *if by 'Flood hero' we understand a mythical protagonist who features centrally in a Flood story as actually braving the Flood* (regardless of such braving is with or without success, with or without survival, with or without warning and protecting divine ally, with or without adversary causing the Flood, with or without post-Flood repopulation, rekindling of fire, re-connection of Heaven and Earth) – then the corpus of Flood myth has many more types of 'Flood heroes' to offer besides the Noahic model:

- not male but female
- not human but animal, in a world where the only sentient beings were (still) animals – the ancestors of later, human clans (in this light, Noah's role as saviour of animals suggests a conceptual transformation from animals as fellow beings to animals as domesticated within Neolithic food production)
- not righteous but a devious trickster, *'jenseits von Gut und Böse'* (Nietzsche)
- not elected to survive for his superior morality but for other reasons (notably, his superior knowledge – by implication of sinister magical relationships and practices incompatible with pious dependence on a Supreme God) or for undisclosed reasons
- not righteous but causing the Flood by his own transgressions
- not a simple earth-dweller but a demiurge situated somewhere between Heaven and Earth
- escaping not in an Ark but by other means,
    - e.g. by using a boat already at hand, or some other man-made device
    - or by the use of some vertical, natural element such as retreating to a mountain top or a tree, ascending through the inside of a reed stalk, etc.
    - or by recreating dry land with the aid of an animal helper, 'Earth

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ally was imposed as a later development within the new worldview that was opening up, presumably in the course of the Neolithic.

Diver', in the shape of an aquatic bird or a rodent
- in the process of constructing his escape vessel, not necessarily being ridiculed by the members of his community (like Noah was reputed to have been)
- at some point in the Flood narrative, confronted with strong evocations of blowing (e.g. on conches, as in Ovid´s Flood evocation), pipes, reeds, wind, trumpets – in what I will identify below as likely manifestations of another element besides Water and Earth, notably Air
- at some point in the Flood narrative, confronted with strong evocations of carpentry or other use of arboreal themes – in what I will identify below as likely manifestations of another element besides Water and Earth, notably Wood
- at some point in the Flood narrative, confronted with strong evocations of fire (e.g. the general extinction and post-Flood rekindling[20] – or, in the Promeutheus variant, the theft –of fire, or the attribution of the cosmoclasm not to water but to fire – in what I will identify below as likely manifestations of another element besides Water and Earth, notably Fire
- braving the flood, not singly but as a couple of both genders
- braving the flood, not singly but as a set of twins of both genders
- braving the flood, not singly but as a pair of brothers
  - either bonded by friendship or fighting among each other
- not single but a group
  - either bonded by friendship or fighting among each other
- not surviving but perishing
- not forewarned but surprised by the Flood
- not in alliance with the Supreme God but with some other supernatural being
- not in alliance with any deity, but confronting formidable, evil supernatural beings
- sending out, or not sending out, a bird to ascertain whether the Flood has ended
- not involved in post-Flood reproduction
- involved in post-Flood reproduction, but of an extraordinary kind:
  - a-sexual, plant-like fission and growth
  - homosexual
  - sibling incest
  - parent-child incest
  - any combination of such abnormal forms of reproduction

> In many Flood stories worldwide we find an emphasis on non-normal means of post-Flood reproduction. An obvious rationalisation is that after the Flood the usual, human, non-kin mates are no longer available, so that the one or two survivors have no choice but to take recourse to sibling incest, father-daughter incest (Lot), or to producing offspring with the help of animals, plants and stones. I think the real reason goes deeper. In the first place, sexuality may be simply too sacred in an archaic context to deal with explicitly in public narrative – a convention prevailing even in the urban North Atlantic region less than half a century ago. Another reason, more particular to the Flood stories as a genre in their own right, is that the Flood

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[20] The annual extinction and rekindling of a community´s fire, from a common (priestly or royal) source, is a recurrent trait in many parts of the Old World (van Binsbergen 2010), and can convincingly be interpreted as an annual renewal of the post-Flood reconstruction of the world.

often appears to be triggered by the discovery of sexuality, and/or by engagement in illicit sexuality, and that therefore all sexuality is to be ruled out in the earliest post-Flood period, when the restored cosmic order is still very precarious. For instance (but there are many other cases from other parts of the world) Talmudic and Islamic sources (cf. Heller 1993; Qur'ān, sura 71, al-Nūḥ [= Nūaḥ]; Talmud: Sanhedrin 108a-b – cf. Goldschmidt 1908-1935; Mishna as in Danby 1983) emphasise that Nuaḥ's family had to observe strict abstinence whilst in the Ark – Ḥam's curse being based, not so much on ridiculing his father when the latter was indulging himself in alcoholic drink (Genesis 9: 22f), but on his own indulging in sexuality while aboard the Ark. There is an interesting parallel here with sorcery (of which Ḥam is also accused in the same traditions – especially manipulating, with evil intentions, the potent remains of Adam and Eve, and their leopard-skin clothes, which has been taken along in the Ark as ancestral mementoes). There is an even clearer parallel, on this point, with the use of fire, which (as an alternative cosmoclasm) in some Flood stories triggers the Flood, and which in many Flood stories needs to be re-initiated specifically after the Flood. Again there is a practical rationalisation: all fire will have been extinguished by the Flood, but again there seems to be more to it. Also compare Prometheus (uncle of the Greek Flood hero Deucalion) who – after the Flood, as the comparative logic of Flood stories suggests – brought the stolen fire in a narthex i.e. a reed (!); and whose name means 'Thinking Ahead' – like bees (!) accumulating their honey, and contrary to crickets who just sing and dance without a thought to the future (cf. the name of Prometheus's brother Epimetheus, 'Thinking Afterwards', the husband of Pandora).

- not engaging in food production through agriculture and animal husbandry (as is obliquely suggested by Noah's Ark full of animals and his success with the viniculture) but an immanentalist hunter/gatherer, who may kill, but also reproduce, with, animals, and for whom even vegetal forms of reproduction may be the most effective ones for post-Flood repopulation.

Most of these dimensions are taken up in the course of our discussion of the quantitative results.

1.6. More general underlying assumptions

My argument is predicated on a number of assumptions which need to be made explicit and to be critically discussed (although not necessarily within the present argument):

1. Not only the contents but also the format, the toolbox, of the thought of Anatomically Modern Humans has evolved, and not only prior to their emergence but also after their emergence, and these changes are in principe open to empirical investigation – although the conceptual, methodological and empirical difficulties on this point are enormous.
2. Yet, despite this shifting toolbox, enough of a basic logical, conceptual and emotive instrumentarium has persisted across tens of ka, to allow us, as intellectual specialists in the postmodern Age, to arrive at something like a valid (albeit necessarily distorted and partial) understanding of Ancient Models of Thought
3. While (2) is already an appeal to the underlying unity of humankind (at least humankind in our Anatomically Modern variety) in terms of mental and communicative capabilities, another – I admit, potentially even more contentious – appeal to continuity is being made: *the cultural history of Anatomically Modern Humans ever since their emergence in the African*

continent 200 ka BP has been o n e s u s t a i n e d p r o c e s s, where myriad local and regional developments inevitably and demonstrably have gone their own way, without however totally being out of touch – both by contemporary contacts and exchanges however diffuse, and by their reliance on the common pre-Exodus heritage. This is the theoretical justification for lumping all Flood myths from all over the world in one all-encompassing data base, and analysing them statistically as if they constituted one consistent population.

4. Elsewhere (van Binsbergen 2009a) I have presented a general definition of myth that has received the honour of being incorporated into Witzel´s (2010' awesome edifice of global mythological history. However, my fourth assumption is that in Flood myths we often find one particular type of myth: the type in which the narrator continues to tell a story while the original, coded meaning of that story has already been lost from consciousness, so that the narrator resorts to templates of narration and dramaturgy that may translate the underlying implied (but no longer consciously perceived) relationships into deceptively real-life moving images, whilst potentially distorting these relationships almost beyond recognition. In the context of Flood myth, it appears as if we encounter many examples of this dynamics: Flood heroes that are not heroes of flesh and blood but elements in a transformative cycle, or Flood-surviving incestuous siblings apparently engaging in repopulation of the earth after the Flood (what could be more logical and more interesting) but in fact constituting oblique representations of land and Water, or Heaven and Earth, or Sun and Moon, etc.

1.7. Statistical methods are merely a tool, not a goal in themselves

This paper is the second instalment[21] of a comprehensive analysis, that kept me occupied nearly full-time for a year in 2007-2008, and whose final report (now completed in draft, and scheduled for publication in 2011) is to run into more than 500 pages. In this light the present argument, despite my apparently ineradicable tendency to long-windedness, can only be truncated, and will have to leave most methodological and interpretational points untouched. Much of this paper will be spend on presenting the statistical results in tabulated form – a text genre that could hardly be more removed from the habitual and familiar text production of comparative mythologists. I am aware that this strategy will tax my audience's patience and interest. However, we should not forget that, to non-specialists in the fields of historical linguistics or Vedic scholarship among the Comparative Mythologists, the highly technical discussions belonging to such specialist fields could be equally taxing. Although I was initially trained as a social scientist and taught quantitative research methods already four decades ago, I have soon moved on to become a student of identity, of religion, of the philosophical bases for interculturality, and – increasingly – a student of the remoter past, first of the Mediterranean and Africa, more recently at a global scale. My interest in statistics as such is as slight as that of most people in the audience. What attracted me to comparative mythology (or rather, what brought me back to it, after a fallow period of decades, following substantial early work on this topic) was (cf. Witzel 2001) the

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[21] The first being: van Binsbergen with Isaak 2008, based on my paper for the 1st Annual Meeting of the IACM in 2007, Edinburgh.

hope that it could be a vehicle towards the identification and periodisation of prehistoric patterns of thought – ultimately in a bid to create, instead of merely speculative wishful thinking, an empirically-based, analytical framework for understanding both the underlying unity of present-day humankind (with special emphasis on the integral place of sub-Saharan Africa within that global pattern),[22] and its cultural and linguistic diversity (van Binsbergen 2003, 2009a). It is on this endeavour that I have concentrated since the early 2000s,[23] with the present argument constituting merely another step.

2. Data set, analysis and method

It is almost impossible to summarise,[24] in a few pages, and for a non-specialist and potentially unsympathetic audience, the complex strategies and problems of a quantitative contents analysis of Flood myths, with great varieties of length, contents and symbolism; gleaned from many cultures all over the world; and dating, at least in their recorded version, from anytime between the Early Bronze Age and the present. Appendices 2 and 3 give some impression of the kind of original data that formed the starting point of the analysis, and of the routine by which these very heterogeneous data were forced into the straightjacket of one, consistent and sustained, procedure of data entry. For reasons of space I cannot here give the descriptive statistics of the full data set. Since the analysis had to be conducted single-handed, I soon had to decide not to process Mark Isaak's entire data set of 395 Flood myths, but to take a 20% subsample – including only every fifth item in the set. This means, of course, that the results based on an analysis of this 20% subsample have a certain error distribution around the true sample values that would have been obtained had it been possible to enter all 395 cases into the analysis; therefore my final data set reflects the true population (i.e. the hypothetical collection of all Flood myths of all times and from all over the world) only in a somewhat blurred manner; however, the subsample was large enough and the statistical tests used were sufficiently powerful to make this blurring effect negligible. Data entry was not only time-consuming but also tantalising, for only while already processing the various myths did it become clear what new categories had to be added to the original code book, and what categories turned out to be impracticable and needed to be replaced by others; as a result, much of the exercise had to be done all over again a number of times.

After data entry, the following main difficulties had to be faced, in a fashion not uncommon in anthropological statistics which are often based on small-sample data:

- *missing cases*

    The factor analysis I intended to use as a main technique would only be meaningful with listwise deletion of all missing cases, yet that would have been potentially disastrous, since the heterogeneity of the data set, and my initial predilection for finely tuned distinctions, left

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[22] Cf. van Binsbergen 2006a, 2006b, 2010b.

[23] Cf. van Binsbergen 2004, 2006a, 2006b, 2009b, 2010a, 2010b; van Binsbergen & Woudhuizen, in press.

[24] Meanwhile, some methodological discussion was already given in van Binsbergen c.s. 2008.

many cells in my entry forms empty. Many input variables could be slightly rephrased so as to avoid missing cases (e.g. 'is there a hero in evidence' might have the pre-set values '0' (no), '1' (yes) and 'missing' (unclear, contradictory etc.); however, rephrasing this as 'is there *positive* evidence of a flood hero', would only leave the non-missing values '1' (no) and '2' (yes). However, given the heterogeneous nature of the data missing values are bound to occur, and we have no option but to keep these outside the multivariate analysis, reserving them for cross tabulation only.

- *the handling of dichotomous variables*

  Dichotomous vqariables notably 'yes/no questions' constitute the great majority of the entry variables, besides variables measured on ordinal and interval scales. It is common practice, although with shaky mathematical foundation, to treat dichotomous variables as having interval scales (e.g. 'no' = 0, yes = '1', and this practice has been followed here. For specific tests e.g. cluster analysis, other solutions are available.

- *the small number of cases for many cells in cross-tabulation*

  The most common statistical test of association for cross tables is the chi-square test, which however requires a minimum expected value of 5 for each cel. With the present data, that requirement cannot always be met, but there is a sound alternative, the likelihood-ratio test – yielding the test statistic known under the letter 'l' – , where no such requirement exists.

- *multicollinearity*

  It is common practice, in quantitative analysis, to derive one variable from one or more others: e.g. age of source = (year of source *minus* year of data entry); however, such derived variables are stochastically dependent upon the origin variables, and if both types would be entered in a multivariate analysis simultaneously, such would result in meaningless artefacts of *multicollinearity*. In constructing the set of about a hundred variables upon which the factor analysis was to be performed, careful selection must be made of the proper combinations, a task rendered even more complex because also variables with more than a few missing values are to be excluded from such sets. As a result, a considerable part of the total information contained in the data set cannot be utilised in multivariate analysis. These excluded variables have been singled out for simpler tests of association with the use of cross tabulation, using employing the likelihood ratio test so as to yield 'l', and (given a particular number of degrees of freedom df) l's associated probability (p; $0 \leq p \leq 1$) indicating whether a particular association can be claimed to exist at a chosen level of significance. In line with common social-science practice, a p of 5% i.e. 0.05 is accepted as an indication that such association between variables as is revealed by statistical testing, is not merely a research artefact but corresponds with a genuine association in reality, between the phenomena measured by these variables. However, we must realise that accepting such a relatively low threshold of significance means that we are prepared to run the risk that, of all our statistical conclusions, 1 out of 20 will be spurious.

- *the distinction between empirical associations and logical implications*

  A problem similar to that of multicollinearity is the following: two variables may more or less presuppose each other by implication and thus yield highly significant statistics, which yet are meaningless, and in fact confusing, in so far as they cannot be used for the identification of genuine, empirically demonstrable underlying stochastic patterns of association in the data set. Let us consider the following example from our analysis:

  # There is a statistically significant, positive association between (a) 'animals stated or implied to survive the Flood' / (b) 'Flood hero stated or implied to have directed the earth diver' [25]

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[25]
```
animals stated or implied to survive Flood
           no      yes
        -1.000   1.000      TOTAL Flood hero stated or implied to direct
                                  earth diver

        --------------------
-1.000     46      29        75 no
 1.000      0       4         4 yes
```

16

Here, and in many similar cases in our analysis, any statistical significant association that may be found must be considered an artefact – not in the sense that it does not correspond with reality, but that it does so by logical implication and not as the outcome of a stochastic process of chance variation: since the earth diver is an animal, (b) cannot attain a positive value as long as (a) is not positive

- *underlying variables*

  There is a fundamental difference between multivariate techniques such as factor analysis, and simple cross tabulation. Multivariate technique is an aggregative approach, whose scope is not limited to the numerous surface variables that happen to have lend themselves for data entry; instead, multivariate analysis (e.,g. factor analysis) brings out a much smaller number of underlying variables which, if properly identified (on the basis of the respective factor loadings on each mathematically constructed and initially anonymous factor), promise to offer much more overall insight in a much smaller principles at work, and to specify exactly which percentage of the data set's total variance each factor is capable of accounting for. Cross tabulation however remains at the naïve level of the surface variables available at data entry. One suspects that when a whole series of such surface variables of comparable wording ((a)'the supernatural'…, 'a god'…, 'the Supreme God'…, etc. (b) 'warns the Flood hero') all yield significant statistical results, that then there one and the same underlying variable responsible for this, so the results should not be treated as so many different dimensions of insight, but as one insight gradually manifesting itself. The results of cross-tabulation, however spectacular at times as we shall see, are essentially weaker and of lesser scope than those of multivariate analysis.[26]

In ways to be set out in the final report, more or less satisfactory solutions for these methodological problems and challenges were found, often by time-consuming trial and error.

3. Flood heroes within the total data set: Some aggregate results of multivariate analysis, and a new perspective on heroic combat

3.1. Aggregate factors and their bearing on Flood heroism

The following Table 1 (taken from my 2008 article) summarises, in highly simplified form, the main results of factor analysis on the data set. It turns out that twelve mutually totally unrelated factors can be constructed (and can be identified on the basis of their loadings on all the original variables). These 12 factors together account for just over 50% of the total variance in the data set. Given the heterogeneity of the data set in place and time, and the qualitative nature of the variables, this is an excellent result. I have shaded the factor descriptions that have a manifest bearing on the Hero theme.

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 TOTAL          46        33        79
l = 7.283; df = 1; p = 0.007
```

[26] One could try to compensate for this by doing further analysis of variance upon the constructed factors broken up against the kind of variables (with typically a high degree of missing cases) that have been more or less excluded from multivariate analysis for reasons of multicollinearity, and that now dominate the cross tabulations. But further difficulties arise here.

Factor, with percent-age of total variance explained	PROPOSED FACTOR NAME, cursory indication of variables involved, and proposed interpretation
FACTOR(1) 4.461	VERTICAL FROM PARADISE: In this factor/motif the vertical dimension is emphasised, with the vertical reed (NarCom 27) which, like the shamanism (NarCom 16) that is also explicitly included in this factor, represents the vertical connection between the separated heaven and earth – and also in the image of animals suspended from heaven in their attempt to escape from the Flood. The same idea of suspension between heaven and earth we find in the spider motif. While this separation implies the notion of transcendence, the vertical, spatial separation also becomes a conceptual and temporal separation in the sense that a transcendent paradise, not here and not now, is evoked as pre-Flood and having ended with the Flood. To this attaches the NarCom 14 of the two children, twins often, who belonged to a paradisiacal state which however came to an end when one killed the other – the Cain and Abel theme (which however in the Bible is not recognised as specifically part of the Nuaḥic Flood story there).
FACTOR(2) 5.646	GOD AS ALLY OF HERO: The supernatural is present in the form of the supreme god, who dwells in heaven (NarCom 3), sends the Flood (NarCom 11) and enters into an unequal alliance with the Flood hero – the supreme god being evidently superior to the hero. The latter receives warning of the Flood, sends out birds (probably transformations of the earth diver i.e. NarCom 26, belonging to an earlier phase of mythological development) at the end of the Flood, and (in a sense that is evoking NarCom 24) engages in agriculture after the Flood – this is the core of the biblical or in general Ancient Near Eastern Elaborate Flood story
FACTOR(3) 4.694	HERO AND ARK: There are survivors to the Flood, specifically there is a Flood hero who is the survivor, and there is a concrete material rescue device (an 'Ark') which allows the hero to survive; this motif/ factor is an alternative to the ogre motif (NarCom 6 – there the confined space is doom rather than rescue), and also an alternative to the blood motive (NarCom 30)(both of which are evocations of the feminine traits – the feminine as source from which life emerges (womb/earth) and to where it returns in death (grave/earth); cf. the Primal Waters, or earth not as male land, but as life-giving and death-receiving)
FACTOR(4) 4.815	FLOOD ALTERNATIVE: An alternative to the Flood motif is the evocation of other cosmoclasms besides the great Flood. Here the attention is drawn to the vertical axis, with the emergence of mountains as a result of the Flood, the evocation of the celestial cow (NarCom 25), and cosmogony from the fragments of a shattered featureless object (NarCom 33)
FACTOR(5) 5.310	ANIMAL SURVIVORS: Animals survive the Flood, especially the earth diver (NarCom 26) who is usually in the shape of a rodent-like small mammal. The theme also speaks of the human demiurge of male gender. A formal characteristic attaches to this factor: if it is high, also the length of the Flood story in question will be high – which reflects the tendency for Elaborate North American Flood stories, where the themes of this factor prevail, to be rendered *in extenso* in the professional ethnographic literature
FACTOR(6) 3.890	SWEETNESS THROUGH INCEST (cf. Shi Yang 2006): The themes of sibling incest and honey (NarCom 18) appear to celebrate the discovery of sexuality (cf. Lévi-Strauss's equation of honey and sexuality; Lévi-Strauss 1969-78; cf. Cook 1976). In some, still unclear way this is associated with the theme of a warning which comes to the Flood hero from some third party and not from the causer of the Flood himself or herself – one is reminded of the snake in the biblical paradise, since the fall of man was sometimes (especially in the Christian tradition) associated with, again, the discovery of sexuality.
FACTOR(7) 3.777	POST-FLOOD REPOPULATION ABNORMAL BUT NOT STONE: Since the Flood usually is held to destroy the whole of humankind with the exception of up to a handful of Flood survivors, there is usually the need for post-Flood repopulation of the earth. Under FACTOR(7), such repopulation proceeds along abnormal lines i.e. otherwise than through normal heterosexual human sexuality. This FACTOR(7) offers several variations for the connection between the Flood and stones (NarCom 8) – Flood victims turning into stones,[27] and repopulation after the Flood taking place by means of stones which (as in the Greek Flood story of Deucalion and Pyrrha) turn into human beings. This factor appears to reveal relatively very ancient mythological layers, with the original creator identified as female.
FACTOR(8) 4.393	KILLING ANIMAL DEMIURGE AND WHITE GOD: This motif highlights the animal trickster or demiurge, who is being murdered or himself engages in murder. This attaches to the theme of the White God (NarCom 21), who may be evoked as a Primary God of Creation, subsequently to be supplanted by a later divine generation or dynasty, and then may be associated with the sun or moon – bright luminaries between heaven and earth in a less than

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[27] Cf. Lot's wife at the fiery cosmoclasm of Sodom and Gomorrah (Genesis 19: 26); here the destruction is in the form of fire (NarCom 36) as an alternative to the Flood; but there are many similar examples in the regular Flood stories in our global sample.

	supreme role. One reason for the appearance of the White God theme appears to be the following: this is typically the original God of Creation, and the narrative therefore is situated at a time, and emulates a worldview, when the separation of the waters into sea, heaven and underworld had not yet taken place or at least not completed. In the context of this primordial mythical time, repopulation was not by normal means (i.e. sexual, and intra-species), but by a-sexual, homosexual or inter-species means. We are here in the presence of such shape-shifters are Proteus, Nereus etc.: transformations of the Original Mistress of the Primal Waters once she was dethroned by the gods of a later dispensation, and typically of male gender. This suggests something about the origin of the trickster figure in general: possibly as a transformation of the original Creatrix, of reversed gender. The typical North American Flood hero is a trickster: Coyote, or Raven, who may cause and fight the Flood at the same time.
FACTOR(9) 3.485	SACRIFICE AS RE-CONNECTION: This is an unusual factor in that it only loads considerably on one variable only, in the data set: the variable measuring whether in the context of the Flood, and especially after the Flood, an explicit reference is made to sacrifice.
FACTOR(10) 4.359	HEAVEN, LUMINARIES, CONNECTION, PARADISE: I have postulated that the Flood stories are predicated on a thought experiment revolving on the following idea: 'if the essence of the cosmic order is the separation of Land and Water (later verticalised and otherwise transformed into the separation of Heaven and Earth), then destruction of that order must be equivalent to the annulment of the separation of the Waters (or of Heaven and Earth, respectively). This factor considers heaven, not (as in factor 2) as the dwelling place of the supreme god as Flood causer, but as the context of the great luminaries Sun (NarCom 35) and Moon (NarCom 9). Remarkably, the Spider complex (NarCom 15) turns out to belong to this factor – confirming an earlier hypothesis of mine, which equates the Spider with the Sun in ancient cosmologies. In the mytheme conveyed by this factor, the connection of heaven and earth is still intact, hence the inclusion of the chain theme, and the explicit idea that the Flood ended the period of paradise – which, of course, what that of the unproblematic, self-evident connection – the incessant embrace – of heaven and earth.
FACTOR(11) 3.683	HEROIC COMBAT: In this motif the combat theme (NarCom 28) appears as, emphatically, an alternative to the Flood motif; there is a heroic evocation of the hero as the human incarnation of the re-connection (NarCom 2) par excellence between heaven and earth; yet, in line with the biblical and Ancient Near Eastern conception of the Flood Causer and the Flood Hero as allies, the combat is not between the Flood Causer and the Flood Hero, but with a third party – or with the Flood itself.
FACTOR(12) 3.056	NUMBERS: This motif is predominantly about numbers, especially entire numbers greater than one. One might even say that this motif is about numerical rationality. It stresses that there is more than one Flood hero. If we are allowed to proceed to consider the weaker loading variables, the emphasis on a plurality of heroes merges with another plurality: that of the four directions and/or elements (NarCom 29); since these are, virtually globally, the dominant evocation of the land, and since the Flood hero, in the light of the above analysis, is another evocation of the land, it is not surprising that the four directions / elements have come to be thought of as persons, implicitly even as Flood heroes joining their forces. Moreover we encounter a number of additional themes here: if there are more Flood heroes mentioned, these will not be closely related as siblings. The emphasis in this factor is on equality. No special, exalted rank is attributed to the Flood hero. The Flood hero is not picked for such rank, but for instance for his moral quality; the latter could be interpreted in terms of personal achievement, since in traditional contexts rank is often a matter of ascription, of birth right. If this factor is high, a specific duration for the Flood tends to be given. Also this factor loads slightly on the theme of volcanic qualities (NarCom 37(fire, earthquakes etc.) as opposed to the theme of the earth as source of life and nourishment).
51.569	

Table 2. Detailed discussion of the factors identified[28]

Out of these twelve constructed and identified factors, at least six do not bear manifestly upon the *Flood hero* theme: FACTORS(1), (4), (5), (7) although dealing with post-Flood repopulation, (9), and (10). The hero component in FACTOR(6) is puzzling but slight. In FACTOR(8) the Flood hero does appear, but as a whimsical

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[28] This table has been heavily edited and aggregated, in the sense that the original constitutent variables are no longer specified, but instead a discursive description of their apparent total performance is given. There is a better, more original version in the Draft Report, and I may consider inserting that here as well.

and rebellious Trickster, and not as the pious and obedient, subservient Noahic type in a transcendent context dominated by the Supreme God, Flood causer and warner at the same time.

Heroism, combat, and the transformative cycle of elements

FACTOR(11) highlights heroic combat, which in 2008 I still attributed to the hero's capacity as the connection par excellence between Heaven and Earth. Meanwhile, however, after much further work on the ancient cosmology of the transformative cycle of elements, I am inclined to see the combat primarily (although, as the further statistical analysis reminds us, not exclusively) in a different light, that of a transformative cycle of elements. Essentially, the cyclical transition between elements can take two forms:

- element E_n destroys elements E_{n+1}, or
- element E_{n-1} produces elements E_n.

Both transitions may also have – as in the Taoist version of such systems (cf. Carus 1898; Needham c.s. 1956) – an attenuated form: insult or hinder next to destroy; and stimulate or further, next to produce.

In many Flood myths, the (non-sexual, processual) 'production' motif in the succession of elements seems to replace ordinary, (hetero-)sexual reproduction in humans especially for the purpose of post-Flood repopulation of the earth; this is an aspect of my present reading of the abundance of non-sexual post-Flood reproduction in Flood myths worldwide, even in cases when the post-Flood actors are human and in possession of the usual organs of reproduction.

On the other hand, the 'destruction' type of elemental transition may take the narrative form of a struggle. In other words, it is in a mutation of the transformative cycle that I would now seek the origin of the emphasis on combat in Flood myths as brought out by FACTOR (11). The combat myth could even be said one of the principal mythemes in comparative mythology world-wide (cf. Fontenrose 1980), and I suggest – contrary to Fontenrose, who gets no further than a sweeping appeal to the universal human condition in the face of death – that here, too, a widespread underlying model of the transformative cycle constitutes the explanatory underlying factor.

It stands to reason to see 'combat' as the main qualifying factor of heroes in the context of Flood myths. *But that would mean that many heroes in such myths are not heroes of flesh and blood enacting the tragedy of the human condition, but merely superficially disguised personifications of the destructive type of cyclical transition from one element to another. In other words, many Flood heroes are not heroes at all, but dummy representations of proto-chemical relationships.*

The final hero-related factor, FACTOR(12), with its emphasis on a plurality of protagonists, in my opinion drives home the fact that in a cyclical transformative system, it would be absurd to have only one protagonist – only if there are at least two, could there be a transformation of one into the other. The striking implication of

FACTOR(12) is that of 'numerical rationality' – between items of equal rank in a series. I suggest that this, again, is a barely disguised reference to a cyclical system of elements. On the other hand, still other number-variables load significantly on this factor, such as the duration of the Flood in number of days; this suggests that an interpretation in terms of a transformative cycle of elements does not quite exhaust the dazzling implications (of proto-science?) of this factor.

4. Conclusion

Apparently, statistics can be a tool to plausibly reveal genuine, code structures of thought going back to tens of thousands of years ago. By a painstaking analysis of these many dimensions as mythically narrated for Flood heroes, I believe to have situate Flood heroes, in all their dazzling variety (hitherto largely underplayed by comparative mythologists), in a sustained history of ideas ranging from the Upper (perhaps even Middle) Palaeolithic to present times, and informed by the major developments listed above:

- the supplanting of cyclical immanentalism by linear transcendentalism; only at the latter end of this continuum could we situate the Noah type of Flood hero, the morally impeccable and obedient servant of an incomparably more powerful, male Supreme God who issues a Flood warning while causing the Flood himself
- the emergence of history; regardless of whether the Flood – as I find absolutely implausible – has ever been a historic event of whatever local or more extensive scale (as an infatigable scholarly industry has sought to prove), the idea of a Flood as a total cosmoclasm is a historic concept that constitutes a total departure from the transformative cycle of elements – even though ingredients of the cosmoclasm (Water, and by a transparent transformation also fire)[29] could be argued to have been borrowed from the transformative cycle, the fact that one element (Water) takes total disastrous possession of reality as a whole goes to show that a unique and non-repetitive event is meant, in other words a breach of the transformative cycle is implied
- the invention of heaven;
- the invention of food production (through agriculture and animal husbandry – featuring in Flood stories as post-Flood reconnections of heaven and earth, and as the special charges of the Flood hero in what can only be interpreted as a mythical evocation of animal husbandry), and
- the gradual assault – by male religious and socio-organisational power and initiatives – on the unmistakable creative and procreative prerogatives women derive from their specific anatomy; hence the discrediting of the female body and its manifestations (menstrual blood, childbed, nurturation) and instead the claim of abnormal post-Flood reproduction and of male creation through the power of the word rather than from the womb.

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[29] As in the transformed Flood story of Sodom and Gomorrah, complete with a few surviving Flood heroes notably Lot and his daughters, resorting to parent-daughter incest for the purpose of global repopulation.

As an unexpected further result of this analysis, we are now in a better position to understand the figure of the Flood hero and the Earth Diver in their interrelation. As Villems´ (2005) research has shown, the mytheme of the earth diver (coot-like bird, or rodent) is mainly found in Northern Eurasia and North America. At an abstract level of structural analysis, identity could be argued between

(a)　　the Land as produced from the Water, in the postulated Cosmogony centring on their Separation, and

(b)　　the Ark, as some concentrated form of the Land function but now amenable to human agency and to the instructions of a Supreme God.

The Earth Diver is usually presented, in Flood myths, as subservient to the human Flood hero, yet as an Aquatic Bird (although, admittedly, less so as rodent) this character may be seen as a simple transformation of the incomparably primal Mother of the Waters (who throughout Eurasia manifests herself as or through an acquatic bird, preferably white, cf. Noah´s own whiteness! – for an extensive discussion with literature see van Binsbergen & Woudhuizen, in press). The earth diver would then appear as a transitional character, a vestige of the main, female, protagonist in the Cosmogony of the Separation of Water and Land, but transformed beyond recognition by the rise of another cosmogonic dispensation, centring on a celestial male god. In fact, Earth Diver and Noah/like flood hero would be each other´s *alter egos*, and both may be seen as a radical mythological development, making the Land-producing Mother of the Waters into the *ultimate enemy* (which she has become throughout Ancient Near Eastern mythology Leviathan, Apep, Yam, Tiamat), not so much of the Flood hero (who after all is her transformation) but of the male celestial god that has taken her cosmogonic place. By striking an alliance with the Flood hero (even though hed is a transformation of the enemy) the Supreme God in the Noahic model renders the contradictions generated by the imposition of two successive cosmologies, more negotiable, and thus clears the way towards a historic, linear, transcendent worldview – one in which heroes have been eminently in place, from Gilgamesh, and his forebear Utnapishtim (the Nuahic prototype), to the myriad heroes, usually highly violent, that populate our TV screens in modern times.[30]

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[30] When I wrote the paper proposal for the present argument, early 2010, I still departed from the idea that the Flood hero could be considered a transformation – under the new and soon dominant disposition of the Cosmogony of the Separation of Heaven and Earth – of Land as the junior complement (Son and Lover) of the Primal Waters as senior complement. What I had in mind was a prototypical hero as exemplified by the Greek heros Achilles, child of the sea goddess Thetis who in many ways qualifies as a demoted Mother of the Waters, again under the newer Heaven-Earth cosmology. However, on second thoughts Achilles, while the her *par excellence*, is also a major sea god in his own right, especially in the Pontic region. So is (as demonstrated by many of her epithets: 'stormy petrel', 'seafarer, etc.) the goddess Athena' (for the detailed argument see van Binsbergen & Woudhuizen, in press), while her protégé, Odysseus, in many way qualifies as a Flood hero – almost inescapably tied to the sea (personified by his arch-enemy Poseidon – another, male transformation of the Mother of the Waters), from which he emerges as if shipwrecked, both among the Phaeacians and finally at Ithaca. Through the mythical character of Achilles, although a formidable fighting machine, still shimmer the feminine connotations of the Mother of the Waters from which, I propose, he is a transformation: at one crucial stage he hides in women's quarters, and women's clothes.

The point of the gender transformation (from female to male) of many primary gods throughout Eurasia in the course of the Bronze Age cannot be discussed here; see van Binsbergen && Woudhuizen, in press, pp. 149ff.

5. Bibliography

Berezkin, Yuri, 2009, Out of Africa and further along the coast: African - South Asian - Australian mythological parallels, Cosmos 23, 1: 3-28.

Berezkin, Yuri, 2008, 'Why Are People Mortal? World Mythology and the ''Out-of-Africa'' Scenario', in: Peter N. Peregrine & Marcus Feldman, eds., Ancient human migrations: A multidisciplinary approach, Salt Lake City: Utah University Press.

Berezkin, Yuri, 2010, 'The emergence of the first people from the underworld: Another cosmogonic myth of a possible African origin', in: Wim M.J. van Binsbergen & Eric Venbrux, eds., New Perspectives on Myth: Proceedings of the Second Annual Conference of the International Association for Comparative Mythology, Ravenstein (the Netherlands), 19-21 August, 2008), Leiden / Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies, pp. 109-216.

Carus, Paul., 1898, Chinese Philosophy: An Exposition of the Main Characteristic Features of Chinese Thought, Chicago: Open Court.

Chomsky, N., 1965, *Aspects of the theory of syntax*, Cambridge, MA: MIT Press.

Cook, Albert., 1976, 'Levi-Strauss and Myth: A Review of Mythologiques' MLN, Vol. 91, No. 5, Centennial Issue: Responsibilities of the Critic (Oct., 1976), pp. 1099-1116

de Vries, J.D., 1978, Heroic Song and Heroic Legend, Arno Press: New York

Dumézil G., 1965, Le livre des héros, légendes sur les Nartes; traduit de l'ossète avec une Introduction et des notes, Paris, 1965.

Dundes, Alan (ed.) 1988. *The Flood Myth*, Berkeley and London: University of California Press

Farnell, L.R., 1921, Greek hero cults and ideas of immortality: The Gifford lectures delivered in the University of St. Andrews in the year 1920, Oxford: Clarendon

Farmer, S.A., 2010, ´The neurobiological origins of primitive religion: Implications for comparative mythology´, in: Wim M.J. van Binsbergen & Eric Venbrux, eds., *New Perspectives on Myth: Proceedings of the Second Annual Conference of the International Association for Comparative Mythology, Ravenstein (the Netherlands), 19-21 August, 2008)*, Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies, pp. 275-308.

Fleming, Harold , 2002, 'Afrasian and Its Closest Relatives: the Borean Hypothesis', abstract Greenberg conference in 2002, at: http://greenberg-conference.stanford.edu/Fleming_Abstract.htm, , retrieved 8-4-2008

Fleming, Harold Crane, 1991, 'A new taxonomic hypothesis: Borean or Boralean', Mother Tongue, 14, Newsletter ASLIP, 16 pp.

Fontenrose, J., 1980, Python: A study of Delphic myth and its origins, Berkeley etc.: University of California Press; paperback edition, reprint of the 1959 first edition

Ford, Clyde W., 2000, The hero with an African face: Mythic wisdom of traditional Africa, New York etc. : Bantam, first published 1999

Frazer, James George., 1918, Folk-lore in the Old Testament: Studies in comparative religion, legend, and law London: Macmillan and Company Ltd.:

Isaak, Mark, 2006, 'Flood Stories from Around the World', at: http://home.earthlink.net/~misaak/floods.htm

Jakobson, R., G. Fant & Halle, Morris, 1952, *Preliminaries to Speech Analysis: the Distinctive Features and their Correlates,* Cambridge, Ma.: MIT Press.

Jaynes, J., 1990, The origin of consciousness in the breakdown of the bicameral mind, Boston: Houghton Mifflin Cie, first published 1976, 6th impr.

Jung, Carl Gustav,. 1991b, Heros und Mutterarchetyp (Symbole der Wandlung 2). Olten und Freiburg im Breisgau: Walter-Verlag.

Kerényi, K., 1978, The heroes of the Greeks, London: Thames & Hudson

Lévi-Strauss, C., 1968, 'The story of Asdiwal', in: Leach, E.R., 1968, ed., The Structural study of myth and totemism, London, 2nd impr., pp. 1-47.

Lévi-Strauss, C., 1969-78, Introduction to a Science of Mythology, 4 vols., trans. by John Weightman and Doreen Weightman, Harmondsworth: Penguin / Chicago: Chicago University Press [check] ; original French edition: Mythologiques I: Le Cru et le Cuit, 1964; II: Du miel aux cendres, 1966; III: Origines des manières de table, 1968; IV: L'homme nu, 1971, Paris: PlonLévi-Strauss, C., 1969-78, Introduction to a Science of Mythology, 4 vols., trans. by John Weightman and Doreen Weightman, Harmondsworth: Penguin / Chicago: Chicago University Press [check] ; original French edition: Mythologiques I: Le Cru et le Cuit, 1964; II: Du miel aux cendres, 1966; III: Origines des manières de table, 1968; IV: L'homme nu, 1971, Paris: Plon

Lyle, Emily, 2010 [Paper Radcliffe conference comparative mythology, Harvard, Cambridge]

Mellars P.A. and Gibson K., eds., 1996, Modelling the Early Human Mind, Cambridge, McDonald Institute for Archaeological Research

Mithen, S. , 1996, The Prehistory of the Mind. A search for the origins of art, religion and science. Thames and Hudson Ltd., London 1996.

Needham, J., with Wing Ling, 1956, Science and civilization in China, vol. 2. History of scientific thought, Cambridge: Cambridge University Press

Okpewho, I., 1981, 'The African Heroic Epic: Internal balance', Africa (Roma), 36, 2: 209-25.

Renfrew, C., & E.B.W. Zubrow, eds., 1994, The ancient mind: Elements of cognitive archaeology, Cambridge: Cambridge University Press.

Shi Yang, 2006, 'The Flood as Meaningful Rebirth, the Symbolism of Mangyan Filipinos' Flood Myth' , paper read at the Harvard/Peking University International Conference on Comparative Mythology, Beijing, May 2006

Starostin, Sergei, & Starostin, George, 1998-2008, Tower of Babel etymological database, participants: Russian State University of the Humanities (Center of Comparative Linguistics), Moscow Jewish University, Russian Academy of Sciences (Dept. of History and Philology), Santa Fe Institute (New Mexico, USA), City University of Hong Kong, Leiden University, at: http://starling.rinet.ru/babel.htm .

Tegnaeus, H., 1950, Le héros civilisateur: Contribution à l'étude ethnologique de la religion et de la sociologie africaines, Studia Ethnographica Upsaliensia no. 2, Stockholm.

van Binsbergen, Wim M.J., 1981, Religious Change in Zambia: Exploratory studies, London/Boston: Kegan Paul International.

van Binsbergen, Wim M.J., 2003, *Intercultural encounters: African and anthropological lessons towards a philosophy of interculturality*, Berlin / Boston / Muenster: LIT.

van Binsbergen, Wim M.J., 2004, 'Long -range mythical continuities across Africa and Asia: Linguistic and iconographic evidence concerning leopard symbolism', paper presented at the Round Table on Myth, Department of Sanskrit and Indian Studies, Harvard University, Cambridge (Mass.), 8-10 May, 2004; at: http://www.shikanda.net/ancient_models/leopard_harvard/leopardwww.htm.

van Binsbergen, Wim M.J., 2006a, 'Mythological archaeology: Situating sub-Saharan African cosmogonic myths within a long-range intercontinential comparative perspective', in: Osada, Toshiki, with the assistance of Hase, Noriko, eds., *Proceedings of the Pre-symposium of RIHN* [Research Institute for Humanity and Nature] *and 7th ESCA* [Ethnogenesis in South and Central Asia] *Harvard-Kyoto Roundtable*, Kyoto: Research Institute for Humanity and Nature (RIHN), pp. 319-349; also at: http://shikanda.net/ancient_models/kyoto_as_published_2006_EDIT2.pdf .

van Binsbergen, Wim M.J., 2006b, 'Further steps towards an aggregative diachronic approach to world mythology, starting from the African continent', paper read at the International Conference on Comparative Mythology, organized by Peking University (Research Institute of Sanskrit Manuscripts & Buddhist Literature) and the Mythology Project, Asia Center, Harvard University (Department of Sanskrit and Indian Studies), May 10-14, 2006, at Peking University, Beijing, China; in press in: Duan Qing & Gu Zhenkun, eds., *Proceedings of the International Conference on Comparative Mythology, Beijing 2008* ; preprint at: http://www.shikanda.net/ancient_models/Further%20steps%20def.pdf .

van Binsbergen, Wim M.J., 2009a, 'Rupture and fusion in the approach to myth: Situating myth analysis between philosophy, poetics and long-range historical reconstruction', *Religion Compass*, 3: 1-34.

van Binsbergen, Wim M.J., 2009b, 'Giving birth to Fire: Evidence for a widespread cosmology revolving on an elemental transformative cycle, in Japan, throughout the Old World, and in the New World', paper presented at the Third Annual Meeting of the International Association for Comparative Mythology, Tokyo, Japan, 23-24 May 2009; available at: http://www.shikanda.net/topicalities/paper_Japan_final.pdf

van Binsbergen, Wim M.J., 2010a, 'Before the Pre-Socratics: The evidence of a common elemental transformational cycle underlying Asian, African and European cosmologies since Neolithic times', Quest: An African Journal of Philosophy / Revue Africaine de Philosophie, 24, 1-2.

van Binsbergen, Wim M.J., 2010b, 'The continuity of African and Eurasian mythologies: General theoretical models, and detailed comparative discussion of the case of Nkoya mythology from Zambia, South Central Africa', in: Wim M.J. van Binsbergen & Eric Venbrux, eds., New Perspectives on Myth: Proceedings of the Second Annual Conference of the International Association for Comparative Mythology, Ravenstein (the Netherlands), 19-21 August, 2008), Leiden / Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies,

pp. 137-215

van Binsbergen, Wim M.J., in collaboration with Mark Isaak, 2008, 'Transcontinental mythological patterns in prehistory: A multivariate contents analysis of flood myths worldwide challenges Oppenheimer's claim that the core mythologies of the Ancient Near East and the Bible originate from early Holocene South East Asia', *Cosmos: The Journal of the Traditional Cosmology Society*, 23 (2007): 29-80.

van Binsbergen, Wim M.J., in press [2010], ed., *Black Athena comes of age*, Berlin etc.: LIT.

van Binsbergen, Wim M.J., in press [2011], *Global patterns in flood myths: Seeking to capture prehistoric modes of thought by means of quantitative contents analysis*, Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies.

van Binsbergen, Wim M.J., & Woudhuizen, Fred C., in press, *Ethnicity in Mediterranean proto-history*, Cambridge: British Archaeology Reports (BAR) International Series.

Vroon, P., 1992, Wolfsklem: De evolutie van het menselijk gedrag, Baarn: Ambo.

Witzel, M., 2001, 'Comparison and reconstruction: Language and mythology', Mother Tongue, 6: 45-62.

Witzel, M., in press, Homo fabulans,: Origins and dispersals of our first mythologies New York: Oxford University Press.

Witzel, Michael, 2010a, 'Pan-Gaean Flood myths: Gondwana myths — and beyond', in: Wim M.J. van Binsbergen & Eric Venbrux, eds., New Perspectives on Myth: Proceedings of the Second Annual Conference of the International Association for Comparative Mythology, Ravenstein (the Netherlands), 19-21 August, 2008), Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies, pp. 217-235.

Witzel, Michael, 2010b, [paper Radcliffe conference on comparative mythology, Harvard, October 2010]

Appendix 1. A selection of statistically significant associations found when cross-tabulating each hero-related variable against all non-hero-related variables

A1.1. Introduction

The following is the most empirical but also the roughest part of this draft. Out of nearly a thousand significant returns, I have tried to select (none too rigorously, at this stage) those that appear to have a direct bearing on the nature and associations of Flood heroes. I have tried to provisionally order this material, and add selective comments – but in fact, almost every significant return when written out in the form of a discursive statement of association of the type

> 'there is a statistically significant, **negative** association between 'human agency stated or implied to have caused Flood', and 'Flood hero stated or implied to survive the Flood' :[31]

constitutes a text for lengthy contemplation and reflection, to an extent that could not be done justice to in the present context. I am not hiding the fact that the results,

---

[31] human agency stated or implied to have caused Flood

```
                 no       yes
             -1.000    1.000    TOTAL  Flood hero stated or implied to survive
                                        Flood

             --------------------
   -1.000        2        7        9 no
    1.000       37       13       50 yes
             --------------------
 TOTAL         39       20       59
l = 8.722; df = 1; p = 0.003
```

although remarkably convergent and consistent, are not so to the full 100%. We are working here with statistical tendencies, inevitably manifesting themselves somewhat out of focus for a number of reason:

- our limited understanding across the mists of time
- the inherent inconsistency and flux of the prehistoric systems – their lack of total integration;
- errors of transmission across many centuries.

We cannot expect total consistency any more than we will find total consistency in the analysis of any living socio-cultural and symbolico-religious system; in fact, for the reasons mentioned, such consistency as the results yet display is truly remarkable. We have to ask ourselves whether it is a true reflection of the prehistoric systems under review, and of their dynamics over time – or whether that consistency could yet to some extent be a research artefact, produced by the analytical distinctions and procedures which we have imposed on the data in the process of constructing our corpus, of designing our analytical categories, of processing the raw data according to their categories in the course of data entry, and of grouping the results in writing up.

A1.2. Statistically significant associations of Flood heroes, conditions and aftermath

A1.2.1. 'Flood hero in evidence'

There is a statistically significant, positive association between 'some kind of Flood rescue device ('Ark') in evidence' and 'Flood hero in evidence'[32]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'warning stated or implied to be made by the Flood causer' [33]

A1.2.1.1. Statistically significant associations of 'Flood hero being stated or implied to be human'

There is a statistically significant, **negative** association 'first conscious beings stated or implied to be animals' / 'Flood hero stated or implied to have been human':[34] [could be interpreted as by implication, yet it is not obvious that the Flood hero has to belong to the first batch of conscious beings]

[32] some kind of Flood rescue device ('Ark') in evidence
```
                no      yes
              -1.000   1.000      TOTAL Flood hero in evidence
              --------------------
    -1.000       3        0         3 no
     1.000      11       65        76 yes
              --------------------
 TOTAL          14       65        79
l = 10.961; df = 1; p = 0.001
```

[33] partner stated or implied to be killed
```
                no      yes
              -1.000   1.000      TOTAL warning stated or implied to be from Flood causer
              --------------------
    -1.000      14        0        14 no
     1.000       8        3        11 yes
              --------------------
 TOTAL          22        3        25
l = 5.455; df = 1; p = 0.020
```

There is a statistically significant, **negative** association 'human trickster-demiurge in evidence' / 'Flood hero stated or implied to have been human'[35] -

There is a statistically significant, positive association 'bird stated or implied to be sent out' and 'Flood hero stated or implied to have been human' [36]

There is a statistically significant, positive association 'Flood hero stated or implied to have been human' / 'sacrifice in evidence'[37]

A1.2.2. On what grounds does the Flood hero qualify to be just that?

A1.2.2.1. Statistically significant associations of the Flood hero being stated or implied to qualify as such by virtue of special knowledge

There is a statistically significant, positive association 'Flood hero stated or implied to be that by virtue of knowledge' / 'the motif of the Separation of Land and Water in evidence'[38] [an advanced stage of transcendentalisation]

There is a statistically significant, negative association 'Flood hero stated or implied to have been human' / 'Flood hero stated or implied to be that by virtue of knowledge'[39] [difficult to understand, unless knowledge is

---

[34]
```
first conscious beings stated or implied to be animals
              no    yes
            -1.000  1.000     TOTAL Flood hero stated or implied to be human
            --------------------
   -1.000      7      4        11 no
    1.000     42      1        43 yes
            --------------------
 TOTAL        49      5        54
l = 9.398; df = 1; p = 0.002
```

[35]
```
human trickster-demiurge in evidence
              no    yes
            -1.000  1.000     TOTAL Flood hero stated or implied to be human
            --------------------
   -1.000     11      6        17 no
    1.000     46      6        52 yes
            --------------------
 TOTAL        57     12        69
l = 4.493; df = 1; p = 0.034
```

[36]
```
bird stated or implied to be sent
              no    yes
            -1.000  1.000     TOTAL   Flood hero stated or implied to be human
            --------------------
   -1.000     17      0        17    no
    1.000     45      7        52    yes
            --------------------
 TOTAL        62      7        69
l = 4.212; df = 1; p = 0.040
```

[37]
```
Flood hero stated or implied to be human
              no    yes
            -1.000  1.000     TOTAL sacrifice in evidence
            --------------------
   -1.000     17     44        61 no
    1.000      0      8         8 yes
            --------------------
 TOTAL        17     52        69
l = 4.859; df = 1; p = 0.027
```

[38]
```
Flood hero stated or implied to be that by virtue of knowledge:
              no    yes
            -1.000  1.000     TOTAL separation of the waters in evidence
            --------------------
   -1.000      5      0         5 no
    1.000      8      6        14 yes
            --------------------
 TOTAL        13      6        19
l = 4.577; df = 1; p = 0.032
```

magical knowledge whereas what qualified for Flood heroism in the context of the Standard Elaborate Flood story is morality]

There is a statistically significant, negative association 'Flood hero stated or implied to be that by virtue of knowledge' / 'Flood hero stated or implied to be that by virtue of his morality':[40]

There is a statistically significant, negative association 'Flood hero stated or implied to be ally of the Flood causer' / 'Flood hero is stated or implied to be that by virtue of knowledge' :[41] [again: knowledge as something that defies transcendence and pious subservience – almost as if knowledge is truly an attribute of the Serpent; cf. Genesis 3:1: 'Now the serpent was more subtil than any beast of the field which the LORD God had made. And he said unto the woman, Yea, hath God said, Ye shall not eat of every tree of the garden?']

A1.2.2.2. Statistically significant associations of the Flood hero being stated or implied to qualify as such through high socio-political rank

There is a statistically significant, positive association 'Flood hero stated or implied to be through by virtue of rank' / 'warning in evidence' [42]

A1.2.2.3. Statistically significant associations of 'Flood hero stated or implied to be that by virtue of agency'

There is a statistically significant, positive association 'the Flood hero stated or implied to be that by virtue of agency' / 'Flood hero stated or implied to be that by virtue of his morality',[43] [*morality = agency*]

---

[39] Flood hero stated or implied to be human

```
             no      yes
           -1.000   1.000    TOTAL Flood hero stated or implied to be that by
                                   virtue of knowledge
           --------------------
  -1.000     11       46       57 no
   1.000      6        6       12 yes
           --------------------
 TOTAL       17       52       69
l = 4.493; df = 1; p = 0.034
```

[40] Flood hero stated or implied to be that by virtue of knowledge:

```
             no      yes
           -1.000   1.000    TOTAL Flood hero stated or implied to be that by
                                   virtue of morality
           --------------------
  -1.000     55       13       68 no
   1.000     11        0       11 yes
           --------------------
 TOTAL       66       13       79
l = 4.292; df = 1; p = 0.038
```

[41] Flood hero stated or implied to be ally of Flood causer:

```
             no      yes
           -1.000   1.000    TOTAL Flood hero stated or implied to be that by
                                   virtue of knowledge
           --------------------
  -1.000     15       17       32 no
   1.000      7        1        8 yes
           --------------------
 TOTAL       22       18       40
l = 4.786; df = 1; p = 0.029
```

[42] Flood hero stated or implied to be that by virtue of rank

```
             no      yes
           -1.000   1.000    TOTAL warning in evidence )
           --------------------
  -1.000     49        3       52 no
   1.000     21        6       27 yes
           --------------------
 TOTAL       70        9       79
l = 4.490; df = 1; p = 0.034
```

[43] Flood hero stated or implied to be that by virtue of agency

```
             no      yes
           -1.000   1.000    TOTAL Flood hero stated or implied to be that by virtue
                                   of morality
```

A1.2.2.4. Statistically significant associations of 'Flood hero stated or implied to be that by virtue of morality'

There is a statistically significant, **negative** association 'Flood hero stated or implied to be that by virtue of morality' / 'the motif of the Separation of Land and Water in evidence':[44] [puzzling for emphasis on morality seems so central to the Standard Elaborate Flood story]

There is a statistically significant, positive association 'duration of the Flood stated or implied' / 'Flood hero stated or implied to be that by virtue of his morality'[45] [puzzling, perhaps *numerical rationality aspect of recent transcendence: numbers are transcendent I doubt whether this should be by implication*]

There is a statistically significant, positive association 'Flood hero stated or implied to be that by virtue of his morality' / 'causer of Flood stated or implied to be a god'[46]

There is a statistically significant, negative association 'Flood hero stated or implied to be that by virtue of knowledge' / 'Flood hero stated or implied to be that by virtue of his morality':[47] [knowledge is immanentalist, the ability to sustain and benefit from the transformative cycle; morality is transcendentalist, to rely not on the order of nature (=transformative cycle) but on the Supreme God]

There is a statistically significant, positive association 'the Flood hero stated or implied to be that by virtue of agency' / 'Flood hero stated or implied to be that by virtue of his morality',[48] [*agency ≈ morality but ≠ knowledge; there is an element of implication but not totally so*]

```
            --------------------
   -1.000         65        3       68 no
    1.000          0       11       11 yes
            --------------------
 TOTAL            65       14       79
l = 49.218; df = 1; p = 0.000
```

[44] Flood hero stated or implied to be that by virtue of morality:
```
                 no      yes
               -1.000   1.000    TOTAL separation of the waters in evidence
            --------------------
   -1.000          3        2        5 no
    1.000         14        0       14 yes
            --------------------
 TOTAL            17        2       19
l = 6.057; df = 1; p = 0.014
```

[45] duration Flood stated or implied
```
                 no      yes
               -1.000   1.000    TOTAL Flood hero stated or implied to be that by virtue
                                        of  morality
            --------------------
   -1.000         56       12       68 no
    1.000          4        7       11 yes
            --------------------
 TOTAL            60       19       79
l = 9.366; df = 1; p = 0.002
```

[46] Flood hero stated or implied to be that by virtue of morality:
```
                 no      yes
               -1.000   1.000    TOTAL causer of Flood stated or implied to be a god
            --------------------
   -1.000         23        1       24 no
    1.000         16        5       21 yes
            --------------------
 TOTAL            39        6       45
l = 3.974; df = 1; p = 0.046
```

[47] Flood hero stated or implied to be that by virtue of knowledge:
```
                 no      yes
               -1.000   1.000    TOTAL Flood hero stated or implied to be that by virtue
                                        of morality
            --------------------
   -1.000         55       13       68 no
    1.000         11        0       11 yes
            --------------------
 TOTAL            66       13       79
l = 4.292; df = 1; p = 0.038
```

[48] Flood hero stated or implied to be that by virtue of agency

A1.2.2.5. Statistically significant associations of 'human agency stated or implied to have caused Flood

There is a statistically significant, **negative** association 'human agency stated or implied to have caused Flood', and 'Flood hero stated or implied to survive the Flood' :[49]

There is a statistically significant, positive association 'human agency stated or implied to have caused Flood' and 'Flood hero's partner stated or implied to have been killed[50] [*here narrative imagination takes over from and supplants the transformative cycle*

There is a statistically significant, **negative** association 'human agency stated or implied to have caused Flood' and 'earth diver in evidence':[51] [the Flood is nobody's fault, but calls forth the archaic earth diver; does this simply mean: while En-1 (= Water) tries to produce En (= Land, the earth diver's product), the process at first runs havoc so that En-1 goes out of control and totally takes over, but subsequently that imbalance is regulated again and En is produced at last; but where does earth diver then come from?]

There is a statistically significant, **negative** association 'human agency stated or implied to have caused Flood' / 'rodent in evidence':[52] [this is the dynamics of the transformative cycle narrative conceived as agency; the rodent expressed a version of the transformative cycle in some version that has been transformed in a different way ; what does the rodent (earth diver) have to do with agency?]

```
                no       yes
             -1.000    1.000      TOTAL Flood hero stated or implied to be that by virtue
                                        of morality
             --------------------
   -1.000       65        3        68 no
    1.000        0       11        11 yes
             --------------------
 TOTAL          65       14        79
l = 49.218; df = 1; p = 0.000

49 human agency stated or implied to have caused Flood
                no       yes
             -1.000    1.000      TOTAL Flood hero stated or implied to survive Flood
             --------------------
   -1.000        2        7         9 no
    1.000       37       13        50 yes
             --------------------
 TOTAL          39       20        59
l = 8.722; df = 1; p = 0.003

50 human agency stated or implied to have caused Flood
                no       yes
             -1.000    1.000      TOTAL partner stated or implied to be killed
             --------------------
   -1.000       52       21        73 no
    1.000        1        5         6 yes
             --------------------
 TOTAL          53       26        79
l = 7.086; df = 1; p = 0.008

51 human agency stated or implied to have caused Flood
                no       yes
             -1.000    1.000      TOTAL earth diver in evidence
             --------------------
   -1.000       48       26        74 no
    1.000        5        0         5 yes
             --------------------
 TOTAL          53       26        79
l = 4.155; df = 1; p = 0.041

52 human agency stated or implied to have caused Flood
                no       yes
             -1.000    1.000      TOTAL rodent in evidence
             --------------------
   -1.000       44       26        70  no
    1.000        9        0         9  yes
             --------------------
 TOTAL          53       26        79
l = 7.741; df = 1; p = 0.005
```

A1.2.2.6. Statistically significant associations of 'the notion of sin' being in evidence

There is a statistically significant, **negative** association 'animal trickster-demiurge in evidence' and 'notion of sin in evidence':[53]

There is a statistically significant, **negative** association 'shape-shifting in evidence' / 'notion of sin in evidence'[54]

There is a statistically significant, positive association 'notion of sin in evidence' / 'causer of Flood stated or implied to be a god'[55]

There is a statistically significant, **negative** association 'multiple Flood heroes are in evidence who are siblings' / 'notion of sin in evidence' :[56] [here the multiple Flood heroes are placed in a close association with sin.]

This is remarkable. In what sense could sin be a mutation of the transformative cycle? Taboo, a transition from A→B that is not allowed. Or should we go back here to the idea that the multiple heroes are Heaven and Earth, in such a way that the original way lies in their separation?

A1.2.3. Does the Flood hero survive the Flood?

A1.2.3.1. Statistically significant associations of 'Flood hero stated or implied to survive the Flood'

There is a statistically significant, positive association 'combat in evidence', and 'Flood hero stated or implied to survive the Flood':[57] [this is somewhat puzzling: it reminds us of the fact that the surviving Flood hero is not just

---

[53] animal trickster-demiurge in evidence

	no	yes		
	-1.000	1.000	TOTAL	sin in evidence

-1.000	54	11	65	no
1.000	14	0	14	yes

TOTAL	68	11	79	

l = 4.660; df = 1; p = 0.031

[54] shape-shifting in evidence

	no	yes		
	-1.000	1.000	TOTAL	sin in evidence

-1.000	55	10	65	no
1.000	14	0	14	yes

TOTAL	69	10	79	

l = 4.202; df = 1; p = 0.040

[55] sin in evidence

	no	yes		
	-1.000	1.000	TOTAL	causer of Flood stated or implied to be a god
	-------------------			
-1.000	22	2	24	no
1.000	14	7	21	yes

TOTAL	36	9	45	

l = 4.534; df = 1; p = 0.033

[56] multiple Flood heroes in evidence who are stated or implied to be siblings

	no	yes		
	-1.000	1.000	TOTAL	sin in evidence

-1.000	15	17	32	no
1.000	5	0	5	yes

TOTAL	20	17	37	

l = 6.813; df = 1; p = 0.009

[57] combat in evidence

	no	yes		
	-1.000	1.000	TOTAL	Flood hero stated or implied to survive Flood
	-------------------			
-1.000	8	1	9	no
1.000	27	23	50	yes

an advanced state towards transcendentalism, but is rather intimately connected with the immanentalism of the transformative cycle; perhaps the Flood hero stands for reality, after all]

There is a statistically significant, **negative** association 'the Flood stated or implied to be associated with blood' / 'Flood hero stated or implied to survive the Flood':[58] [*again: blood (with its feminine connotations) = death*]

There is a statistically significant, negative association 'human agency stated or implied to have caused Flood', and 'Flood hero stated or implied to survive the Flood' :[59]

There is a statistically significant, **negative** association 'the gender stated or implied to have triggered the Flood is female' / 'Flood hero stated or implied to survive the Flood':[60]

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' / 'Flood hero stated or implied to survive the Flood':[61] [if Flood hero is woman then does not survive]

There is a statistically significant, positive association 'Flood hero stated or implied to be ally of the Flood causer' / 'Flood hero stated or implied to survive the Flood' [62]

```
                   --------------------
 TOTAL          35        24        59
l = 4.455; df = 1; p = 0.035
```

[58] association Flood and blood in evidence
```
                no        yes
             -1.000     1.000      TOTAL Flood hero stated or implied to survive Flood
                   --------------------
   -1.000        6         3         9 no
    1.000       49         1        50 yes
                   --------------------
 TOTAL          55         4        59
l = 7.991; df = 1; p = 0.005
```

[59] human agency stated or implied to have caused Flood
```
                no        yes
             -1.000     1.000      TOTAL Flood hero stated or implied to survive Flood
                   --------------------
   -1.000        2         7         9 no
    1.000       37        13        50 yes
                   --------------------
 TOTAL          39        20        59
l = 8.722; df = 1; p = 0.003
```

[60] gender stated or implied to have triggered the Flood
```
               male     female
             -1.000     1.000      TOTAL Flood hero stated or implied to survive
                                          Flood
                   --------------------
   -1.000        1         4         5 no
    1.000        7         1         8 yes
                   --------------------
 TOTAL           8         5        13
l = 6.291; df = 1; p = 0.012
```

[61] gender Flood hero stated or implied to be
```
               male     female
             -1.000     1.000      TOTAL Flood hero stated or implied to survive Flood
                   --------------------
   -1.000        2         4         6 no
    1.000       25         3        28 yes
                   --------------------
 TOTAL          27         7        34
l = 7.868; df = 1; p = 0.005
```

[62] Flood hero stated or implied to be ally of Flood causer:
```
                no        yes
             -1.000     1.000      TOTAL Flood hero stated or implied to survive Flood
                   --------------------
   -1.000        6         0         6 no
    1.000       12        13        25 yes
                   --------------------
 TOTAL          18        13        31
l = 7.548; df = 1; p = 0.006
```

There is a statistically significant, **negative** association 'Flood hero stated or implied to survive the Flood' / 'ridicule in evidence' [i.e. if there is no ridicule greater tendency to survival] [63]

There is a statistically significant, positive association between 'some kind of Flood rescue device ('Ark') in evidence' and 'Flood hero claimed or stated to survive Flood'[64]

There is a statistically significant, positive association 'animals stated or implied to survive the Flood' / 'Flood hero stated or implied to survive the Flood' [65] [here we are also in the narrative domain far removed from reminiscences of the transformative cycle]

There is a statistically significant, positive association 'Flood hero stated or implied to survive the Flood' / 'Flood rescue device stated or implied to have been man-made' [66]

A1.2.4. The number of Flood heroes, and interrelations between them

A1.2.4.1. Statistically significant associations of 'multiple Flood heroes are in evidence who constitute a married couple'

There is a statistically significant, positive association 'Flood hero stated or implied to be ally of the Flood causer' / 'multiple Flood heroes are in evidence who constitute a married couple' :[67] [one we have a divine Flood

---

[63]
```
Flood hero stated or implied to survive Flood
              no      yes
            -1.000   1.000     TOTAL ridicule in evidence
           --------------------
  -1.000       0       14        14 no
   1.000       2        5         7 yes
           --------------------
 TOTAL         2       19        21
```
l = 4.833; df = 1; p = 0.028

[64]
```
some kind of Flood rescue device ('Ark') in evidence
              no      yes
            -1.000   1.000     TOTAL Flood hero stated or implied to survive Flood
           --------------------
  -1.000       6        3         9 no
   1.000       5       45        50 yes
           --------------------
 TOTAL        11       48        59
```
l = 12.795; df = 1; p = 0.000

[65]
```
animals stated or implied to survive Flood
              no      yes
            -1.000   1.000     TOTAL  Flood hero stated or implied to survive Flood
           --------------------
  -1.000       9        0         9   no
   1.000      24       26        50   yes
           --------------------
 TOTAL        33       26        59
```
l = 11.724; df = 1; p = 0.001

[66]
```
Flood hero stated or implied to survive Flood
              no      yes
            -1.000   1.000     TOTAL Flood rescue device stated or implied to be man-made
           --------------------
  -1.000       8       23        31 no
   1.000       1       27        28 yes
           --------------------
 TOTAL         9       50        59
```
l = 6.365; df = 1; p = 0.012

[67]
```
Flood hero stated or implied to be ally of Flood causer:
              no      yes
            -1.000   1.000     TOTAL multiple Flood heroes stated or implied to be married
couple
           --------------------
  -1.000      11        4        15 no
   1.000       0        2         2 yes
           --------------------
 TOTAL        11        6        17
```
l = 4.677; df = 1; p = 0.031

causer and all well on the way towards transcendence, the element connotations of the multiple Flood heroes are shed and they simply become a married couple

There is a statistically significant, positive association 'multiple Flood heroes are in evidence who constitute a married couple' / 'causer of Flood stated or implied to be supernatural'[68]

There is a statistically significant, positive association 'multiple Flood heroes are in evidence who constitute a married couple' / 'post-Flood re-population stated or implied to be through stones'[69] [*this is strange for as a couple they might also reproduce in the standard manner – it indicates that Flood heroes, especially when appearing as a couple, are essentially not to be considered human persons; perhaps the married couple is not so advanced after all; I am inclined to interpret the married couple as the Two Children (elsewhere in these tables I have suggested that these Two Children could be Sun and Moon, but Heaven and Earth seems both more comprehensive and more likely*]

A1.2.4.2. Statistically significant associations of 'multiple Flood heroes in evidence who are stated or implied to be each other's siblings'

There is a statistically significant, positive association between 'multiple Flood heroes are in evidence who are siblings' / 'motif of the two children in evidence'[70] [here it turns out that the idea of multiple heroes (as derived from the elements) may mix with the idea of the two children (as an image of Heaven and Earth, or of Sun and Moon, or of Water and Land)]

A1.2.5. Gender of the Flood hero(es)

A1.2.5.1. Flood myths, menstruation, and the cosmological place of women in general

We are familiar with an entire historical load of negative stereotyping vis-à-vis women (especially such allegedly polluting properties, allegedly impossible to reconcile with the sacred, as are attributed to menstruation, childbed, female genitals). Such stereotyping is so widespread (Judaism, Christianity, Islam, sub-Saharan Africa) that it must have a history of millennia. Even though we do not need to go so far as to postulate that these negative stereotypes go back to Pandora's Box, if seems inevitable that we find the same complex of negative stereotyping back in the context of a mythical complex as old and as widespread as that of Flood myths. This stereotyping must have a cosmological, culture basis. It appears that in the context of the present analysis of Flood myths, we are close to identifying that basis. For Flood myths appear to revolve on the ascendance of male power, but how?

---

[68] multiple Flood heroes stated or implied to be married couple

```
             no      yes
           -1.000   1.000     TOTAL  causer of Flood stated or implied to be supreme god
           --------------------
  -1.000      14       0        14 no
   1.000       5       2         7 yes
           --------------------
 TOTAL         19       2        21
l = 4.833; df = 1; p = 0.028
```

[69] multiple Flood heroes stated or implied to be married couple

```
             no      yes
           -1.000   1.000     TOTAL  repopulation stated or implied to be through stones
           --------------------
  -1.000      32       3        35 no
   1.000       0       2         2 yes
           --------------------
 TOTAL         32       5        37
l = 8.831; df = 1; p = 0.003
```

[70] multiple Flood heroes in evidence who are stated or implied to be siblings

```
             no      yes
           -1.000   1.000     TOTAL  two children in evidence
           --------------------
  -1.000      18       6        24 no
   1.000       2      11        13 yes
           --------------------
 TOTAL         20      17        37
l = 12.895; df = 1; p = 0.000
```

Let us consider a Flood myth among the Tabo people of the interior of Northern Argentina.[71] Here the Flood is called forth by the rainbow snake, which is furious because a menstruating woman has polluted the water by virtue of her state. In a way that suggests an origin in *Pandora's Box*, the same motif is found in Arnhem Land (Northern Australia), and in South Central Africa. In the latter region the motif is concentrated, among other attestations, around the myth of Ruweej / Luwedji.[72] She was queen of her people (throughout this region, extending a few hundred kilometres in either direction from the intersection of the Angola-Congo-Zambia border, the first few generations of rulers were almost invariably women), until with the arrival of a stranger, named Hunter / Chiwinda, the idea was introduced that a menstruating rulers means a pollution for the kingship, and as a result the royal office was henceforth reserved, not longer to women, but to men. This is the main motif of my study *Tears of rain: Ethnicity and history in central western Zambia* (1992). It is tempting to link up this motif with another motif, which the Dutch phenomenologist of religion Sierksma (1917-1977) has description in terms of *the theft of the women's secret*:[73] the postulated emergence, after the Neolithic, of armed men who overthrew female dominance in the fields of reproduction and food production, and who as sign of their supremacy appropriated the female cult symbols. This kind of 'matriarchal' motifs was rather popular in anthropology and comparative mythology until the middle of the 20th century. It is not clear whether such motifs have an empirical, historical ground, or whether (as most specialists would assume today) they merely constitute anti-masculine, women-friendly modern myths in their own right, in the hands of well-intending scholars (e.g. Bachofen, Graves, Engels and most recently Gimbutas).

A1.2.5.2. Statistically significant associations of which gender the Flood hero stated or implied to have

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' / 'Flood hero stated or implied to be ally of Flood causer'[74]

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' stated or implied to be female' / 'Flood hero stated or implied to survive the Flood':[75]

There is a statistically significant, **negative** association 'animals stated or implied to survive the Flood' / 'gender Flood hero stated or implied to be female':[76]

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' / 'Flood rescue device stated or implied to have been man-made' :[77] [as if the female domain is totally incapacitating]

---

[71] Cf. John Bierhorst, 1988, *The mythology of South America*, New York: William Morrow, pp. 142-143; with thanks to Mark Isaak, 2006.

[72] **[add refs]**

[73] Sierksma, F., 1962, De roof van het vrouwengeheim: De mythe van de dictatuur der vrouwen en het ontstaan der geheime mannengenootschappen, Den Haag: Mouton.

[74]
```
gender Flood hero stated or implied to be
           male    female
          -1.000    1.000    TOTAL Flood hero stated or implied to be ally of Flood causer
          --------------------
  -1.000     9        6       15 no
   1.000    12        1       13 yes
          --------------------
 TOTAL      21        7       28
l = 4.249; df = 1; p = 0.039
```

[75]
```
gender Flood hero stated or implied to be
           male    female
          -1.000    1.000    TOTAL Flood hero stated or implied to survive Flood
          --------------------
  -1.000     2        4        6 no
   1.000    25        3       28 yes
          --------------------
 TOTAL      27        7       34
l = 7.868; df = 1; p = 0.005
```

[76]
```
animals stated or implied to survive Flood
           no      yes
          -1.000    1.000    TOTAL gender Flood hero stated or implied to be
          --------------------
  -1.000    12       23       35  male
   1.000     9        1       10  female
          --------------------
 TOTAL      21       24       45
l = 10.678; df = 1; p = 0.001
```

There is a statistically significant, positive association 'gender Flood hero stated or implied to be female ' / 'post-Flood repopulation stated or implied to have been abnormal':[78] [*Why is it that, precisely on this point, the possession of female reproductive organs does not make reproduction self-evidence and unproblematic? Is the Flood a catastrophe of the female organs? Because the idea of a transformative cycle amounts to a denial of female prerogatives in reproduction? Or is the Flood simply a celebration of male dominance?*]

There is a statistically significant, positive association 'gender Flood hero stated or implied to be female' / 'post-Flood repopulation stated or implied to have been a-sexual'[79]

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' / 'sacrifice in evidence':[80]

A1.2.6. With reference to the time before the Flood, is there any partner / sibling of the Flood hero(es) in evidence ?

A1.2.6.1. Statistically significant associations of 'Flood hero's partner stated or implied to be a sibling'

There is a statistically significant, positive association 'plurality of worlds in evidence' / 'Flood hero's partner stated or implied to be a sibling' [81]   [plurality of worlds (among other things, a shamanic concept) presupposes the separation of Heaven and Earth – these are relatively advanced themes]

---

[77]
```
 gender Flood hero stated or implied to be
            male     female
           -1.000    1.000     TOTAL Flood rescue device stated or implied to be man-made
          --------------------
  -1.000     16         8        24 no
   1.000     19         2        21 yes
          --------------------
 TOTAL       35        10        45
l = 3.912; df = 1; p = 0.048
```

[78]
```
 gender Flood hero stated or implied to be
            male     female
           -1.000    1.000     TOTAL repopulation stated or implied to be abnormal
          --------------------
  -1.000     10         0        10 no
   1.000      4         4         8 yes
          --------------------
 TOTAL       14         4        18
l = 7.979; df = 1; p = 0.005
```

[79]
```
 gender Flood hero stated or implied to be
            male     female
           -1.000    1.000     TOTAL repopulation stated or implied to be a-sexual
          --------------------
  -1.000      7         4        11 no
   1.000      7         0         7 yes
          --------------------
 TOTAL       14         4        18
l = 4.649; df = 1; p = 0.031
```

[80]
```
 gender Flood hero stated or implied to be
            male     female
           -1.000    1.000     TOTAL sacrifice in evidence
          --------------------
  -1.000     28        10        38 no
   1.000      7         0         7 yes
          --------------------
 TOTAL       35        10        45
l = 3.872; df = 1; p = 0.049
```

[81]
```
 plurality of worlds in evidence
             no       yes
           -1.000    1.000     TOTAL partner stated or implied to be sibling
          --------------------
  -1.000     44         6        50 no
   1.000     20         9        29 yes
          --------------------
 TOTAL       64        15        79
```

There is a statistically significant, positive association 'fire stated or implied to have caused the Flood' / 'Flood hero's partner stated or implied to be a sibling'[82] [evocation of the transformative cycle ; the partner is not a real partner but the adjacent element in the cycle]

There is a statistically significant, positive association between 'human agency stated or implied to have caused Flood' and 'Flood hero's partner stated or implied to be a sibling[83]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be a sibling' / 're-connection of Heaven and Earth in evidence'[84] [*528. It looks as if here, after all, lies the key to the interpretation of the 'Flood hero partner is sibling' as Heaven and Earth (Land / Water); but in other aspects of our analysis the interpretation in terms van elements was also rather applicable. ; sibling, twin is a form of reconnection; also think of the Nkoya idea concerning the identity of sister and spouse*]

A1.2.6.2. Flood hero(es) (attempt to) kill partner / sibling: Statistical associations of 'Flood hero's partner being stated or implied to be killed (or threatened to be killed)

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'Flood hero's partner stated or implied to be a sibling'[85]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'Flood rescue device stated or implied to be natural' [86]

```
l = 4.178; df = 1; p = 0.041

82 fire stated or implied to have caused Flood
              no      yes
            -1.000   1.000    TOTAL partner stated or implied to be sibling
           --------------------
  -1.000      49        1        50 no
   1.000      24        5        29 yes
           --------------------
 TOTAL        73        6        79
l = 5.998; df = 1; p = 0.014

83 human agency stated or implied to have caused Flood
              no      yes
            -1.000   1.000    TOTAL partner stated or implied to be sibling
           --------------------
  -1.000      38       12        50 no
   1.000      15       14        29 yes
           --------------------
 TOTAL        53       26        79
l = 4.825; df = 1; p = 0.028

84 partner stated or implied to be sibling
              no      yes
            -1.000   1.000    TOTAL re-connection in evidence
           --------------------
  -1.000      23        5        28 no
   1.000      27       24        51 yes
           --------------------
 TOTAL        50       29        79
l = 7.067; df = 1; p = 0.008

85 partner stated or implied to be killed
              no      yes
            -1.000   1.000    TOTAL partner stated or implied to be sibling
           --------------------
  -1.000      50        0        50 no
   1.000      23        6        29 yes
           --------------------
 TOTAL        73        6        79
l = 12.895; df = 1; p = 0.000

86 partner stated or implied to be killed
              no      yes
            -1.000   1.000    TOTAL Flood rescue device stated or implied to be natural
           --------------------
  -1.000      67        3        70 no
   1.000       6        3         9 yes
           --------------------
 TOTAL        73        6        79
```

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'serpent stated or implied to have caused the Flood' [87] [Is it the Serpent that brings about the separation of Heaven and Earth? And if so, in which capacity:]

- as adversary tout court

- as obsolete principle that, in this ordered world image, can only bring about chaos, in the form of Chaos (Tiamat, Χάως, Apep)

But take care: the Act of Separation of heaven and Earth may be violent, painful and destructive, but it is also the Central Act of Creation! Serpent therefore also appears at the Ultimate Creator, prior to Heaven and Earth. The birdlike Sky god that becomes the Patron of the Flood Hero, is in the first place the bird of pray preying on the serpent as Snake (iconography: eagle holding snake in bill or claws, China and possibly other provenances). Also see: Zimbabwe rock art: snake into Heaven. That would mean that the Rainbow [Serpent] which the Sky god sets in the Sky, as , as a sign of the post-Flood covenant, is in fact (as so often when it comes to hierarchy and control / manipulation of one deity over the other) the subdued Supreme God of an earlier dispensation. But be careful: separating (the Act of Separation) may be violent, painful and destructive, but it is also the Central Act of Creation! Serpent therefore also appears as the Ultimate Creator, prior to Heaven and Earth. [This is another version of my NarCom 'The Earth as Primary' – Earth = Serpent , in this connection] . And when the Serpent is supplanted by the later dispensation featuring Heaven and Earth (after the invention of Heaven, in the context of shamanism and naked-eye astronomy, sometime in the Upper Palaeolithic I used to think until the present analysis threw into relief the relationship between shamanism and agriculture), then the Serpent becomes the primordial, chaotic stuff out of which Heaven and Earth are fashion – the Serpent becomes in itself, not the perpetrator, but the victim, of Creation as an Act of Separating Violent.]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'motif of the two children in evidence'[88]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'warning stated or implied to be made by the Flood causer' [89]

A1.2.7. The Flood hero in relation to the Flood causer

A1.2.7.1. The Flood hero as ally of the Flood causer: Statistically significant association 'Flood hero stated or implied to be an ally of the Flood causer

l = 6.238; df = 1; p = 0.013

[87] partner stated or implied to be killed

	no -1.000	yes 1.000	TOTAL	serpent stated or implied to have caused Flood
-1.000	70	4	74	no
1.000	3	2	5	yes
TOTAL	73	6	79	

l = 4.613; df = 1; p = 0.032

[88] partner stated or implied to be killed

	no -1.000	yes 1.000	TOTAL	two children in evidence
-1.000	60	2	62	no
1.000	13	4	17	yes
TOTAL	73	6	79	

l = 6.244; df = 1; p = 0.012

[89] partner stated or implied to be killed

	no -1.000	yes 1.000	TOTAL	warning stated or implied to be from Flood causer
-1.000	14	0	14	no
1.000	8	3	11	yes
TOTAL	22	3	25	

l = 5.455; df = 1; p = 0.020

Of course, the entire idea of a statistical analysis of Flood myths is based on the idea of their essential and profound comparability. Therefore my Aggregative Diachronic theory of global mythology constitutes a precondition for the present investigation. there is a statistically significant, **negative** association 'Flood hero stated or implied to be ally of the Flood causer' / 'the Flood stated or implied to be caused by serpent':[90] [If the Serpent is pre-[out of Africa] Exodus adversary, then it must have been very considerably transformed before it can have taken on the connotation of ally of the Flood hero; with the Serpent itself, no alliance is possible. Se the preceding notes for the full argument.]

There is a statistically significant, positive association 'Flood hero stated or implied to be ally of the Flood causer' / 'the causer of Flood stated or implied to be a supernatural being'[91]

There is a statistically significant, **negative** association 'Flood hero stated or implied to be ally of Flood causer' / 'combat between Flood hero and Flood causer in evidence' [92]-

There is a statistically significant, **negative** association 'Flood hero stated or implied to be ally of the Flood causer' / 'Flood hero stated or implied to be that by virtue of knowledge' :[93]

There is a statistically significant, **negative** association 'gender Flood hero stated or implied to be female' / 'Flood hero stated or implied to be ally of Flood causer'[94]

---

[90]
```
Flood hero stated or implied to be ally of Flood causer:
              no       yes
           -1.000    1.000      TOTAL serpent stated or implied to have caused Flood
           --------------------
  -1.000      17       18         35 no
   1.000       5        0          5 yes
           --------------------
 TOTAL         22       18         40
l = 6.559; df = 1; p = 0.010
```

[91]
```
Flood hero stated or implied to be ally of Flood causer:
              no       yes
           -1.000    1.000      TOTAL causer of Flood stated or implied to be supreme god
           --------------------
  -1.000      17        4         21 no
   1.000       4        8         12 yes
           --------------------
 TOTAL         21       12         33
l = 7.535; df = 1; p = 0.006
```

[92]
```
combat between Flood hero and Flood causer in evidence
              no     yes
           -1.000    1.000      TOTAL Flood hero stated or implied to be ally of Flood causer
           --------------------
  -1.000       7        5         12 no
   1.000       8        0          8 yes
           --------------------
 TOTAL         15        5         20
l = 6.193; df = 1; p = 0.013
```

[93]
```
Flood hero stated or implied to be ally of Flood causer:
              no       yes
           -1.000    1.000      TOTAL Flood hero stated or implied to be that by virtue of
knowledge
           --------------------
  -1.000      15       17         32 no
   1.000       7        1          8 yes
           --------------------
 TOTAL         22       18         40
l = 4.786; df = 1; p = 0.029
```

[94]
```
gender Flood hero stated or implied to be
              male    female
           -1.000    1.000      TOTAL Flood hero stated or implied to be ally of Flood causer
           --------------------
  -1.000       9        6         15 no
   1.000      12        1         13 yes
           --------------------
 TOTAL         21        7         28
l = 4.249; df = 1; p = 0.039
```

There is a statistically significant, positive association between 'some kind of Flood rescue device ('Ark') in evidence', and 'Flood hero said or implied to have a god for ally'[95] [*If the idea of an iterative, repetitive transformative cycle is breached in favour of the idea of a unique cosmoclasm, then one needs a commensurably exceptional great counterforce in order to contain and remedy this otherwise unthinkably devastation disaster. The idea of the High God springs not just from a thought experiment thinking through the separation of Land and Water (that was only a first attempt on my part), but springs particularly also from thinking through the enormous forces that have created, and that subsequently sustain, the world order! Besides, the thinkability of such forces increased and became easier with the increase of the complexity of socio-political realm created by humans, from the Upper Palaeolithic onwards.*

There is a statistically significant, positive association 'Flood hero stated or implied to be ally of the Flood causer' / 'post-Flood re-population stated or implied to be through stones'[96]

A1.2.7.2. Noaḥ as the proverbial Flood hero

The biblical account of the Flood (Genesis 6-10) is complemented by Talmudic and Arabian traditions. According to these, the bones of Adam, and / or the animal skins (specifically reported to have been leopard skins) in which he and Eve were clothed after the Fall, were taken into the Ark as powerful relics and magical objects. The entire journey in the Ark fell under a prohibition of sexuality (which refers to the connection, found in Flood myth in many parts of the world, between the Flood and the discovery of sexuality – and also on the transformative cycle as an implicitly male-centred, mysogynic, a-sexual alternative to normal reproduction; but which was later rationalised by reference to the limited space in the Ark, which make procreation undesirable); Nuaḥ's son Ḥam allegedly violated this prohibition, and / or allegedly tried to commit magic with the bones and the skins, and these hideous acts were supposed to have been the true reason for Nuaḥ's curse of Ḥam (especially of the latter's son Canaan) – even though the Bible explains this curse (in what is unmistakably a concealing rationalisation) as resulting from Nuaḥ's hangover after the first-ever drunkenness. [97]

A1.2.8. The primal twins as a particular pair of Flood heroes

A1.2.8.1. Primal twins in the context of Flood myths

A motif that is found in many Flood myths is that of the Primal Twins, who produce (either in paradise, or in the first phase of repopulation after the Flood) other humans and gods; cf. the Ancient Egyptian Primal Twins Shu and Tefnut ('Air' and 'Moisture') the first offspring produced by the male primal god Atum through masturbation; and Genesis 2-3, in which – in a typical reversion of the original Water-Land relationship – the woman is produced from the man, and becomes his spouse. This motif is also found in the well-known Grimm fairy tale of Little Brother and Little Sister, in which however the Flood motif is almost completely submerged.[98]

A1.2.8.2. Statistically significant associations of Two Children being in evidence in the Flood myth

---

[95]
```
some kind of Flood rescue device ('Ark') in evidence
            no       yes
          -1.000    1.000     TOTAL Flood hero stated or implied to be ally of Flood causer
          --------------------
  -1.000     6        16        22 no
   1.000     0        18        18 yes
          --------------------
 TOTAL       6        34        40
l = 8.035; df = 1; p = 0.005
```

[96]
```
Flood hero stated or implied to be ally of Flood causer:
            no       yes
          -1.000    1.000     TOTAL repopulation stated or implied to be from
                                    stones
          --------------------
  -1.000    22        15        37 no
   1.000     0         3         3 yes
          --------------------
 TOTAL      22        18        40
l = 5.091; df = 1; p = 0.024
```

[97] See especially: Heller, B., 1993, 'Nuh, the Noah of the Bible', in: C.E. Bosworth, E. van Donzel, W.P. Heinrichs & G. Lecomte, 1968, eds, *Encyclopaedia of Islam*, new edition, VIII, Leiden: Brill, pp. 108-109.
[98] *Cf.* Grimm, *o.c.*, no. 11: 'Brüderchen und Schwesterchen'.

There is a statistically significant, positive association 'shape-shifting in evidence' / 'motif of the two children in evidence'[99] [*puzzling: if we agree that shape-shifting refers to the transformative cycle then we cannot accommodate the Two Children. The association of shape-shifting with the demiurge and with sea gods such as Proteus suggests also a connection with the Mother of the Waters hence the Cosmogony of the Separation of Water and Land, and in that case the Two Children might be, not so much Heaven and Earth (with which I have identified them elsewhere in this list), but the cosmogonically analogous Water and Land*]

There is a statistically significant, positive association 'motif of the two children in evidence' / 'combat in evidence'[100] [again: combat is not just the transformative cycle and nothing more, otherwise it would not be associated with the Two Children]

There is a statistically significant, positive association 'fire stated or implied to have caused the Flood' / 'motif of the two children in evidence'[101]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'motif of the two children in evidence'[102]

There is a statistically significant, positive association 'hanging in evidence' / 'motif of the two children in evidence'[103]   [*Heaven and Earth*]

---

[99] shape-shifting in evidence

	no	yes		
	-1.000	1.000	TOTAL	two children in evidence
-1.000	57	5	62	no
1.000	12	5	17	yes
TOTAL	69	10	79	

l = 4.655; df = 1; p = 0.031

[100] combat in evidence

	no	yes		
	-1.000	1.000	TOTAL	two children in evidence
-1.000	42	20	62	no
1.000	6	11	17	yes
TOTAL	48	31	79	

l = 5.785; df = 1; p = 0.016

[101] fire stated or implied to have caused Flood

	no	yes		
	-1.000	1.000	TOTAL	two children in evidence
-1.000	60	2	62	no
1.000	13	4	17	yes
TOTAL	73	6	79	

l = 6.244; df = 1; p = 0.012

[102] partner stated or implied to be killed

	no	yes		
	-1.000	1.000	TOTAL	two children in evidence
-1.000	60	2	62	no
1.000	13	4	17	yes
TOTAL	73	6	79	

l = 6.244; df = 1; p = 0.012

[103] hanging in evidence

	no	yes		
	-1.000	1.000	TOTAL	two children in evidence
-1.000	59	3	62	no
1.000	10	7	17	yes
TOTAL	69	10	79	

l = 12.956; df = 1; p = 0.000

There is a statistically significant, positive association between 'multiple Flood heroes are in evidence who are siblings' / 'motif of the two children in evidence'[104] [*Heaven and Earth, of Water and Land, rather than elements or the two luminaries*]

There is a statistically significant, positive association 're-connection of Heaven and Earth in evidence' / 'the motif of the two children in evidence'[105] [*Two Children as reconnection*]

There is a statistically significant, negative association 'motif of the two children in evidence' / 'Flood rescue device stated or implied to have been man-made'[106]

A1.2.9. The Ark: The nature of the rescue from the Flood

A1.2.9.1. Is there any effective Flood rescue device i.e. 'an Ark' in evidence?

There is a statistically significant, negative association 'some kind of Flood rescue device ('Ark') in evidence' / 'the Flood stated or implied to be associated with blood'[107] [*the blood and absence of ark appears to be an archaic version*]

There is a statistically significant, positive association between 'some kind of Flood rescue device ('Ark') in evidence', and 'Flood hero said or implied to have a god for ally'[108]

---

[104] multiple Flood heroes in evidence who are stated or implied to be siblings

| | no | yes | | |
	-1.000	1.000	TOTAL	two children in evidence
-1.000	18	6	24	no
1.000	2	11	13	yes
TOTAL	20	17	37	

l = 12.895; df = 1; p = 0.000

[105] re-connection in evidence

| | no | yes | | |
	-1.000	1.000	TOTAL	two children in evidence
-1.000	27	35	62	no
1.000	1	16	17	yes
TOTAL	28	51	79	

l = 10.202; df = 1; p = 0.001

[106] Flood rescue device stated or implied to be man-made

| | no | yes | | |
	-1.000	1.000	TOTAL	two children in evidence
-1.000	31	31	62	no
1.000	14	3	17	yes
TOTAL	45	34	79	

l = 6.186; df = 1; p = 0.013

[107] some kind of Flood rescue device ('Ark') in evidence

| | no | yes | | |
	-1.000	1.000	TOTAL	association Flood and blood in evidence
-1.000	11	63	74	no
1.000	3	2	5	yes
TOTAL	14	65	79	

l = 4.866; df = 1; p = 0.027

[108] some kind of Flood rescue device ('Ark') in evidence

| | no | yes | | |
	-1.000	1.000	TOTAL	Flood hero stated or implied to be ally of Flood causer
-1.000	6	16	22	no
1.000	0	18	18	yes
TOTAL	6	34	40	

l = 8.035; df = 1; p = 0.005

One would therefore expect a statistically significant association between the Flood hero's gender, and an Ark being in evidence – and in fact there is a strong indication of such an association but (given the relatively small sample size) it just fails to be significant:

like previous, blood stands for femininity, but the association between the gender of the Flood hero and the presence of some ark just falls short of being significant[109] -- it may have been significant if a larger sample had been used

A1.2.9.2. Flood myths with no specific detached ark, but with a natural refuge as part of the landscape

In many Flood myths, the refuge is not a natural or man-made Ark, but merely a natural elevation such as a tree trunk, a tree or a mountain top.

A1.2.9.3. Natural Flood rescue device serving as Ark: statistical associations

There is a statistically significant, positive association 'Flood rescue device stated or implied to be natural' / 'motif of the two children in evidence'[110] [Yet, of the idea of Two Children is so strongly associated with Heaven and Earth, then we still need to explain why this idea tends to be associated with a natural rescuing device. The only explanation which I have so far proposed is that here we are still very close to the transformative cycle.]

There is a statistically significant, positive association 'animal trickster-demiurge in evidence' / 'mountains stated or implied to constitute Flood rescue'[111]

There is a statistically significant, positive association 'Flood hero's partner stated or implied to be killed' / 'Flood rescue device stated or implied to be natural' [112]

There is a statistically significant, positive association 'multiple Flood heroes are in evidence who are siblings' / 'Flood rescue device stated or implied to be natural' [113]

---

[109]
```
some kind of Flood rescue device ('Ark') in evidence
              no        yes
            -1.000    1.000      TOTAL gender Flood hero stated or implied to be
            --------------------
  -1.000       4        31         35 male
   1.000       4         6         10 female
            --------------------
 TOTAL         8        37         45
l = 3.784; df = 1; p = 0.052; not significant!
```

[110]
```
Flood rescue device stated or implied to be natural
              no        yes
            -1.000    1.000      TOTAL two children in evidence
            --------------------
  -1.000      60         2         62 no
   1.000      10         7         17 yes
            --------------------
 TOTAL        70         9         79
l = 15.328; df = 1; p = 0.000
```

[111]
```
animal trickster-demiurge in evidence
              no        yes
            -1.000    1.000      TOTAL Flood rescue device stated or implied to be mountain
            --------------------
  -1.000      59         6         65 no
   1.000       9         5         14 yes
            --------------------
 TOTAL        68        11         79
l = 5.497; df = 1; p = 0.019
```

[112]
```
partner stated or implied to be killed
              no        yes
            -1.000    1.000      TOTAL Flood rescue device stated or implied to be natural
            --------------------
  -1.000      67         3         70 no
   1.000       6         3          9 yes
            --------------------
 TOTAL        73         6         79
l = 6.238; df = 1; p = 0.013
```

[113]
```
multiple Flood heroes in evidence who are stated or implied to be siblings
              no    yes
```

There is a statistically significant, positive association 'incest in evidence' / 'Flood rescue device stated or implied to be natural',[114]

A1.2.9.4. Rescue through climbing inside a reed

In several Flood myths, again especially from North-eastern Asia and the New World, Flood heroes (especially animals) escape from the Flood by climbing up to heaven in a narrow reed stalk. Here the parallel with the Greek Prometheus myth is particularly manifest: Prometheus carried the stolen fire in a reed stalk (narthex).

A1.2.9.5. Statistically significant associations of the Flood rescue device being man-made

There is a statistically significant, positive association 'Flood rescue device stated or implied to have been man-made' / 'causer of Flood stated or implied to be a god'[115]

There is a statistically significant, **negative** association 'Flood rescue device stated or implied to have been man-made' / 'a third party stated or implied to be involved in the Flood episode'[116] [*596: by third party, not a man-made device: this is to be thought through further; but it could be an artefact*]

There is a statistically significant, **negative** association 'Flood rescue device stated or implied to have been man-made' / 'Flood rescue device stated or implied to be natural' [117]

There is a statistically significant, **negative** association 'Flood rescue device stated or implied to have been man-made' / 'Flood rescue device stated or implied to consist in a mountain or mountains'[118] [*mutually exclusive*]

```
          -1.000     1.000     TOTAL Flood rescue device stated or implied to be natural
                 --------------------
   -1.000        20        13        33 no
    1.000         0         4         4 yes
                 --------------------
 TOTAL           20        17        37
l = 6.798; df = 1; p = 0.009
```

[114]
```
 incest in evidence
                no        yes
          -1.000     1.000     TOTAL Flood rescue device stated or implied to be natural
                 --------------------
   -1.000        68         2        70 no
    1.000         7         2         9 yes
                 --------------------
 TOTAL           75         4        79
l = 3.961; df = 1; p = 0.047
```

[115]
```
 Flood rescue device stated or implied to be man-made
                no        yes
          -1.000     1.000     TOTAL causer of Flood stated or implied to be a god
                 --------------------
   -1.000        19         5        24 no
    1.000        10        11        21 yes
                 --------------------
 TOTAL           29        16        45
l = 4.946; df = 1; p = 0.026
```

[116]
```
 Flood rescue device stated or implied to be man-made
                no        yes
          -1.000     1.000     TOTAL third party in evidence
                 --------------------
   -1.000        19        25        44 no
    1.000        26         9        35 yes
                 --------------------
 TOTAL           45        34        79
l = 7.901; df = 1; p = 0.005
```

[117]
```
 Flood rescue device stated or implied to be man-made
                no        yes
          -1.000     1.000     TOTAL Flood rescue device stated or implied to be natural
                 --------------------
   -1.000        36        34        70 no
    1.000         9         0         9 yes
                 --------------------
 TOTAL           45        34        79
l = 10.997; df = 1; p = 0.001
```

There is a statistically significant, positive association 'Flood rescue device stated or implied to have been man-made' / 'post-Flood re-population stated or implied to be through stones' [119]

There is a statistically significant, positive association 're-connection between Heaven and Earth stated or implied to be man-made' / 'warning in evidence' [120]

A1.2.10. Are the Flood hero(es) / other protagonist(s) involved in a contest-game-combat

A1.2.10.1. Statistically significant associations of 'combat in evidence'

There is a statistically significant, positive association 'combat in evidence' / 'serpent in evidence'[121] [this is another indication that the entire text of Genesis 1-12 amounts to a Flood story, cf. the Serpent in paradise ; yet the presence of the serpent suggests that the combat cannot simply be reduced to an expression of the transformative cycle and nothing more]

There is a statistically significant, positive association 'combat in evidence' / 'rank in evidence'[122] [this is not so clear; rank suggests a relatively late development – I believe I have miscoded the rank variable by assuming, during the data entry process, that 'hero', or 'demiurge', automatically imply: high rank]

---

[118]
```
Flood rescue device stated or implied to be man-made
              no     yes
           -1.000   1.000    TOTAL Flood rescue device stated or implied to be mountain
          --------------------
  -1.000     31       34        65 no
   1.000     14        0        14 yes
          --------------------
 TOTAL       45       34        79
l = 18.010; df = 1; p = 0.000
```

[119]
```
Flood rescue device stated or implied to be man-made
              no     yes
           -1.000   1.000    TOTAL repopulation stated or implied to be through stones
          --------------------
  -1.000     45       31        76 no
   1.000      0        3         3 yes
          --------------------
 TOTAL       45       34        79
l = 5.216; df = 1; p = 0.022
```

[120]
```
Flood rescue device stated or implied to be man-made
              no     yes
           -1.000   1.000    TOTAL warning in evidence
          --------------------
  -1.000     34       18        52 no
   1.000     11       16        27 yes
          --------------------
 TOTAL       45       34        79
l = 4.399; df = 1; p = 0.036
```

[121]
```
combat in evidence
              no     yes
           -1.000   1.000    TOTAL serpent in evidence
          --------------------
  -1.000     45       24        69 no
   1.000      3        7        10 yes
          --------------------
 TOTAL       48       31        79
l = 4.452; df = 1; p = 0.035
```

[122]
```
combat in evidence
              no     yes
           -1.000   1.000    TOTAL rank in evidence
          --------------------
  -1.000     39       18        57 no
   1.000      9       13        22 yes
          --------------------
 TOTAL       48       31        79
l = 4.966; df = 1; p = 0.026
```

There is a statistically significant, positive association 'combat in evidence' / 'demiurge in evidence'[123]

There is a statistically significant, positive association 'combat in evidence', / 'the motif of demiurge and murder in evidence'[124] [puzzling: murder we can interpret in terms of the transformative cycle (E_n destroys E_{n-1}), but the demiurge seems to be a different kettle of fish altogether]

There is a statistically significant, positive association 'two children in evidence'/ 'combat in evidence'[125] [again; the combat as an intermediate development, for the Two Children are not easily explained in terms of the transformative cycle ; by an Ancient Egyptian analogy (Tefnut and Shu, the first creatures to be created by Atum, through masturbation, and associated not only with Humidity and Air, but also with Sun and Moon – as the Eyes of Horus) one might think that the Two Children revert to an initial step in the Cosmogony of the Separation of Heaven and Earth – cf. Genesis 1:16]

There is a statistically significant, negative association 'combat in evidence' / 'fish in evidence'[126]

There is a statistically significant, positive association 'combat in evidence' / 'fire stated or implied to have caused the Flood'[127] [*this still reminds us of the battle between fire and water, and of the entire transformative cycle of water, fire, earth, light, wood and metal. It was at this point in my analysis, in fact, that I was struck by the insight that what we are essentially dealing with, in these Flood myth, is mutations of a cosmological transformative cycle*]

---

[123]
```
    combat in evidence
              no      yes
            -1.000   1.000    TOTAL demiurge in evidence
            --------------------
   -1.000       33       13       46 no
    1.000       15       18       33 yes
            --------------------
 TOTAL          48       31       79
```
l = 5.579; df = 1; p = 0.018

[124]
```
    combat in evidence
              no      yes
            -1.000   1.000    TOTAL motif of demiurge and murder in evidence
            --------------------
   -1.000       44       21       65 no
    1.000        4       10       14 yes
            --------------------
 TOTAL          48       31       79
```
l = 7.287; df = 1; p = 0.007

[125]
```
    combat in evidence
              no      yes
            -1.000   1.000    TOTAL two children in evidence
            --------------------
   -1.000       42       20       62 no
    1.000        6       11       17 yes
            --------------------
 TOTAL          48       31       79
```
l = 5.785; df = 1; p = 0.016

[126]
```
    combat in evidence
              no      yes
            -1.000   1.000    TOTAL fish in evidence
            --------------------
   -1.000       42       31       73 no
    1.000        6        0        6 yes
            --------------------
 TOTAL          48       31       79
```
l = 6.295; df = 1; p = 0.012

[127]
```
    combat in evidence
              no      yes
            -1.000   1.000    TOTAL fire stated or implied to have caused Flood
            --------------------
   -1.000       48       25       73
    1.000        0        6        6
            --------------------
 TOTAL          48       31       79
```
l = 12.002; df = 1; p = 0.001

There is a statistically significant, **negative** association 'combat in evidence' / 'cosmoclasm stated or implied to be a Flood'[128] [makes sense: if the combat is an evocation of an intact transformative cycle, then one element (Water) cannot take over the whole of reality]

There is a statistically significant, positive association 'combat in evidence' / 'mountains stated or implied to result from Flood'[129] [*Could this be part of the same transformative cycle: water produces earth? Is it still an echo of the original separation of Land and Water?*]

There is a statistically significant, positive association 'combat in evidence' / 'Flood stated or implied to end paradise'[130] [*rather logically so, more or less by implication; taken literally from a modern perspective, the combat is the opposite of Paradise, for it means strife; however, if we look at Paradise as the history-less cycle of self-repetitive transformations, then combat is an expression of the same*]

There is a statistically significant, negative association 'combat in evidence' / 'multiple Flood heroes are in evidence who constitute a married couple'[131] [the crux seems to be, not the fact that there are multiple Flood heroes (for these we have learned to understand as elements within a transformative cycle) but that there are only two elements which moreover intimately belong together as a married couple – both in number, and in terms of the strength and uniqueness of the bond, a breach of the transformative cycle]

There is a statistically significant, positive association 'combat in evidence' and 'a third party stated or implied to be involved in the Flood episode'[132] [*Third Party: Adversary, Serpent, Rainbow Serpent; or the other elements*

---

[128]
```
    combat in evidence
            no      yes
          -1.000   1.000      TOTAL cosmoclasm stated or implied to be Flood
          --------------------
  -1.000      2        6        8 no
   1.000     46       25       71 yes
          --------------------
 TOTAL       48       31       79
l = 4.711; df = 1; p = 0.030
```

[129]
```
    combat in evidence
            no      yes
          -1.000   1.000      TOTAL mountains stated or implied to result from Flood
          --------------------
  -1.000     48       26       74 no
   1.000      0        5        5 yes
          --------------------
 TOTAL       48       31       79
l = 9.885; df = 1; p = 0.002
```

[130]
```
    combat in evidence
            no      yes
          -1.000   1.000      TOTAL Flood stated or implied to be end paradise
          --------------------
  -1.000     48       27       75 no
   1.000      0        4        4 yes
          --------------------
 TOTAL       48       31       79
l = 7.818; df = 1; p = 0.005
```

[131]
```
    combat in evidence
            no      yes
          -1.000   1.000      TOTAL multiple Flood heroes stated or implied to be married
couple
          --------------------
  -1.000     16       16       32 no
   1.000      5        0        5 yes
          --------------------
 TOTAL       21       16       37
l = 6.254; df = 1; p = 0.012
```

[132]
```
    combat in evidence
            no      yes
          -1.000   1.000      TOTAL third party in evidence
          --------------------
  -1.000     36        8       44 no
   1.000     12       23       35 yes
          --------------------
 TOTAL       48       31       79
l = 19.102; df = 1; p = 0.000
```

; yet again indicating that combat cannot be totally relegated to the transformative cycle, for then there could not be a Third Party ; however, see the next item]

There is a statistically significant, positive association 'combat in evidence' / 'Flood hero stated or implied to be trickster'[133] [more than the Demiurge, the Trickster can be seen as a simple evocation of the (shape shifting, ever transforming) transformative cycle; this would throw light on the previous item: apparently the difference between Trickster and Demiurge is not always so very great]

There is a statistically significant, positive association 'combat in evidence', and 'Flood hero stated or implied to survive Flood'[134] [this I cannot explain on the basis of the transformative cycle – unless the Flood hero is reality itself, which persists immutably but merely undergoes ephemeral, unessential format changes

There is a statistically significant, positive association 'combat in evidence' and 'earth diver in evidence'[135] [Does this not suggest that the earth diver belongs to Pandora's Box? Yet is also surfaces in North America and in North East Asia. Or would Flood myth have their origin there (yes! in North East Asia, where the origin lies of mtDNA Type B). This means t hat the Earth Diver belongs to NarCom 11. It is also a production of CITI III (and therefore should no longer be listed as a separate NarCom in its own right). The earth diver is also part of the transformative cycle: Earth ends Water / Earth destroys Water. The entire combat theme is cosmological in addition to social/political/military. ; So paradise precedes the cosmological transformative cycle, or exists outside that cycle; paradise revolves on the idea of the unity of opposites, in such a way that one's sibling can be one's spouse. ; Could we not also interpret the Trickster in this sense? The trickster does not represent the (pre-cosmogonic) Chaos, but the transformation, the cycle. In fact the idea of transcendence is, in the first place, a denial of the transformation cycle. This is why the separation of Heaven and Earth radically both creates and upsets/threatens/changes the order of reality. This is perhaps also why China, especially Taoism, has never fundamentally adopted the vertical scheme (despite paying lip-service to Heaven and to the emperor as the Son of Heaven) and has been stuck in the transformative cycle (I Ching, pa kua) – just like Africa, incidentally, where true transcendence is relatively unthinkable for reasons why I have explored elsewhere (leopard studies).]

There is a statistically significant, positive association between 'combat in evidence' and 'earth diver stated or implied to have ended Flood'[136]

---

[133]
```
    combat in evidence
              no    yes
            -1.000  1.000    TOTAL Flood hero stated or implied to be trickster
            -------------------
   -1.000     36     23       59 no
    1.000      2      8       10 yes
            -------------------
 TOTAL        38     31       69
l = 6.032; df = 1; p = 0.014
```

[134]
```
    combat in evidence
              no    yes
            -1.000  1.000    TOTAL Flood hero stated or implied to survive Flood
            -------------------
   -1.000      8      1        9 no
    1.000     27     23       50 yes
            -------------------
 TOTAL        35     24       59
l = 4.455; df = 1; p = 0.035
```

[135]
```
    combat in evidence
              no    yes
            -1.000  1.000    TOTAL earth diver in evidence
            -------------------
   -1.000     48     26       74 no
    1.000      0      5        5 yes
            -------------------
 TOTAL        48     31       79
l = 9.885; df = 1; p = 0.002
```

[136]
```
    combat in evidence
              no    yes
            -1.000  1.000    TOTAL earth diver stated or implied to have ended Flood
            -------------------
   -1.000     48     27       75 no
    1.000      0      4        4 yes
            -------------------
 TOTAL        48     31       79
l = 7.818; df = 1; p = 0.005
```

There is a statistically significant, positive association 'combat in evidence' and 'post-Flood re-connection between Heaven and Earth stated or implied to be human'[137] [this does not fit our theory: re-connection appears to be a relatively late theme since it presupposes the Separation of Heaven and Earth; however, one could also argue that such re-connection tries to annihilate such Separation of Heaven and Earth as has been effected, and therefore tries to revert back to an earlier cosmological phase, in other words is regressive and typologically early, not late. The combat motif seems to constitute an intermediate stage: trying to steer away from the transformative cycle, but not very well succeeding

A1.2.10.2. Statistically significant associations of the Flood hero / causer combat

There is a statistically significant, **negative** association 'supernatural in evidence' / 'combat between Flood hero and Flood causer in evidence':[138] [for a combat between Flood hero and Flood causer would be predicated on the assumption that the two antagonists are equal, in other words that we find ourselves within an immanentalist world view which has not room for transcendence and the idea of a god, let alone a Supreme God]

There is a statistically significant, **negative** association 'combat between Flood hero and Flood causer in evidence' / 'food crops in evidence';[139]

there is an there is a statistically significant, positive association between 'gender of the supernatural stated or implied', and 'combat between Flood hero and Flood causer in evidence':[140]

There is a statistically significant, positive association 'combat between Flood hero and Flood causer in evidence' / 'human trickster-demiurge in evidence'[141] [is very important, because here combat is still translated in

---

[137]
```
combat in evidence
              no      yes
           -1.000   1.000    TOTAL re-connection stated or implied to be human
           --------------------
 -1.000      45       23       68 no
  1.000       3        8       11 yes
           --------------------
 TOTAL       48       31       79
l = 5.919; df = 1; p = 0.015
```

[138]
```
combat between Flood hero and Flood causer in evidence
              no      yes
           -1.000   1.000    TOTAL supernatural in evidence
           --------------------
 -1.000       2        3        5 no
  1.000      16        2       18 yes
           --------------------
 TOTAL       18        5       23
l = 4.797; df = 1; p = 0.029
```

[139]
```
combat between Flood hero and Flood causer in evidence
              no      yes
           -1.000   1.000    TOTAL food crops in evidence
           --------------------
 -1.000      17        6       23 no
  1.000       8        0        8 yes
           --------------------
 TOTAL       25        6       31
l = 4.060; df = 1; p = 0.044
```

[140]
```
combat between Flood hero and Flood causer in evidence
              no      yes
           -1.000   1.000    TOTAL gender of the supernatural stated or implied to be
           --------------------
 -1.000       8        0        8 male
  1.000       0        1        1 female
           --------------------
 TOTAL        8        1        9
l = 6.279; df = 1; p = 0.012
```

[141]
```
combat between Flood hero and Flood causer in evidence
              no     yes
           -1.000   1.000    TOTAL human trickster-demiurge in evidence
           --------------------
 -1.000      22        2       24 no
  1.000       3        4        7 yes
           --------------------
 TOTAL       25        6       31
```

terms of a combat between the Flood hero and the Flood causer (e.g. Marduk / Tiamat),and the Flood hero has not yet become the ally / servant / dependent of a Supreme God. ; In view of the evocation of the cosmological transformative cycle, the trickster is nothing but the combat, but that is an implication at the level of the Ancient Thought as reconstructed by me, not at the level of the modernist logic of statistical analysis.; again immanentalist implications – as are characteristic of the transformative cycle]

There is a statistically significant, **negative** association 'combat between Flood hero and Flood causer in evidence' / 'causer of Flood stated or implied to be supernatural':[142]

There is a statistically significant, **negative** association between 'combat between Flood hero and Flood causer in evidence' / 'warning in evidence':[143]

There is a statistically significant, positive association 'combat between Flood hero and Flood causer in evidence' / 'earth diver in evidence'[144]

There is a statistically significant, positive association 'combat between Flood hero and Flood causer in evidence' / 'earth diver stated or implied to end the Flood'[145] [Excellent, once one has finally recognised that combat, trickster, Earth Diver have so much in common as aspects of the cosmological transformative cycle, then everything falls in place. Would that cycle belong to Pandora's Box? I do not think so, see above. Yet, just as a said: Combat = transformation cycle, essentially immanent, does not agree with the verticalisation which breached through the de cosmological transformative cycle (the latter conceived as Ewigen Widerkehr des Gleichen).]

There is a statistically significant, positive association 'Flood hero stated or implied to direct earth diver' / 'combat between Flood hero and Flood causer in evidence' [146]

```
l = 7.133; df = 1; p = 0.008
```

[142] combat between Flood hero and Flood causer in evidence

```
                no     yes
              -1.000   1.000    TOTAL causer of Flood stated or implied to be
                                       supernatural
              --------------------
   -1.000       11        6        17 no
    1.000        7        0         7 yes
              --------------------
 TOTAL          18        6        24
l = 4.918; df = 1; p = 0.027
```

[143] combat between Flood hero and Flood causer in evidence

```
                no     yes
              -1.000   1.000    TOTAL warning in evidence
              --------------------
   -1.000       15        6        21 no
    1.000       10        0        10 yes
              --------------------
 TOTAL          25        6        31
l = 5.335; df = 1; p = 0.021
```

[144] combat between Flood hero and Flood causer in evidence

```
                no     yes
              -1.000   1.000     TOTAL earth diver in evidence
  --------------------
   -1.000       23        3        26 no
    1.000        2        3         5 yes
  --------------------
 TOTAL          25        6 31
l = 5.136; df = 1; p = 0.023
```

[145] combat between Flood hero and Flood causer in evidence

```
                no     yes
              -1.000   1.000     TOTAL earth diver stated or implied to have ended Flood
              --------------------
   -1.000       24        3        27 no
    1.000        1        3         4 yes
              --------------------
 TOTAL          25        6        31
l = 7.127; df = 1; p = 0.008
```

[146] combat between Flood hero and Flood causer in evidence

```
                no     yes
              -1.000   1.000     TOTAL Flood hero stated or implied to direct earth diver
              --------------------
   -1.000       24        3        27
```

There is a statistically significant, **negative** association 'Flood hero stated or implied to repopulate' / 'combat between Flood hero and Flood causer in evidence':[147] [for combat is an expression of the transformative cycle, which knows no ordinary reproduction but only produces through cyclical transformation]

There is a statistically significant, **negative** association 're-connection between Heaven and Earth in evidence' / 'combat between Flood hero and Flood causer in evidence':[148]

A1.2.11. How was it known that the Flood had stopped?

A1.2.11.1. Was a bird sent out by the Flood hero?

Although elsewhere in this analysis I have suggested that the bird sent out by the Flood hero could be a transformation of the earth diver, and thus ultimately a personification of the process of the Land separating from the Primal Waters, some of the statistical associations found around the Flood hero being stated or implied to sent out one or more birds merely conjure up the familiar Nuaḥite model.

Thus there is a statistically significant positive association between birds being stated or implied to be sent out, and the Flood hero's status as an ally of the Flood causer [what this ultimately seems to mean is that here we are in the realm where Heaven and Earth are thought to be separated, notably by air, which is the birds' domain – this marks the bird motif as relatively advanced]

There is a statistically significant, positive association 'bird stated or implied to be sent out' and 'Flood causer stated or implied to be a god' [149] [*Is it possible that the bird is in reality a god in its own right? Raven, Eagle, Horus – always the celestial god as bird; cf. also the sacred birds as pan-Nostratic animals. And in addition all sacred birds from Greek mythology (Graves).* ; I cannot imagine that all these cases of bird are all based on a Noahic model; check this in the data set.]

There is a statistically significant, positive association between 'bird stated or implied to be sent out', and 'causer of Flood stated or implied to be the Supreme God'.[150]:

```
    1.000          1          3          4
                   --------------------
 TOTAL            25          6         31
l = 7.127; df = 1; p = 0.008
```

[147] combat between Flood hero and Flood causer in evidence
```
                    no    yes
                 -1.000   1.000     TOTAL Flood hero stated or implied to repopulate
                 --------------------
   -1.000          7        3        10
    1.000         14        0        14
                 --------------------
 TOTAL           21        3        24
l = 5.868; df = 1; p = 0.015
```

[148] combat between Flood hero and Flood causer in evidence
```
                    no    yes
                 -1.000   1.000     TOTAL re-connection in evidence
                 --------------------
   -1.000          3        4         7 no
    1.000         22        2        24 yes
                 --------------------
 TOTAL           25        6        31
l = 7.133; df = 1; p = 0.008
```

[149] bird stated or implied to be sent
```
                         no    yes
                      -1.000   1.000     TOTAL  causer of Flood stated or implied to be a god
                      --------------------
   -1.000         24        0        24 no
    1.000         16        5        21  yes
                      --------------------
 TOTAL           40        5        45
l = 8.342; df = 1; p = 0.004
```

[150] bird stated or implied to be sent
```
                    no    yes
                 -1.000   1.000     TOTAL causer stated or implied to be supreme god
                 --------------------
   -1.000         30        0        30 no
```

There is a statistically significant, positive association 'bird stated or implied to be sent out' and 'Flood hero stated or implied to have been human' [151]

There is a statistically significant, positive association between 'bird stated or implied to be sent out' and 'Flood hero stated or implied to be ally of Flood causer' [152]

There is a statistically significant, positive association between 'bird stated or implied to be sent out' and 'Flood rescue device stated or implied to be man-made'[153]

There is a statistically significant, positive association between 'warning in evidence', and 'bird stated or implied to be sent out' out:[154]   [*bird looks like warning: bridging information-distance in space and time*]

There is a statistically significant, positive association 'bird stated or implied to be sent out' and 'sacrifice in evidence'[155]

```
     1.000         10         5         15 yes
                -------------------
 TOTAL           40         5         45
l = 12.299; df = 1; p = 0.000
```

[151]
```
     bird stated or implied to be sent
                no      yes
             -1.000    1.000    TOTAL    Flood hero stated or implied to be human
                -------------------
   -1.000      17        0        17     no
    1.000      45        7        52     yes
                -------------------
 TOTAL         62        7        69
l = 4.212; df = 1; p = 0.040
```

[152]
```
     bird stated or implied to be sent
                no      yes
             -1.000    1.000    TOTAL    Flood hero stated or implied to be ally of Flood
                                         causer
                -------------------
   -1.000      21        1        22     no
    1.000      11        7        18     yes
                -------------------
 TOTAL         32        8        40
l = 7.839; df = 1; p = 0.005
```

[153]
```
     bird stated or implied to be sent
                no      yes
             -1.000    1.000    TOTAL  Flood rescue device stated or implied to be
                                       man-made
                -------------------
   -1.000      44        1        45  no
    1.000      27        7        34  yes
                -------------------
 TOTAL         71        8        79
l = 7.636; df = 1; p = 0.006
```

[154]
```
     bird stated or implied to be sent
                no      yes
             -1.000    1.000    TOTAL warning in evidence
                -------------------
   -1.000      51        1        52 no
    1.000      20        7        27 yes
                -------------------
 TOTAL         71        8        79
l = 11.015; df = 1; p = 0.001
```

[155]
```
     bird stated or implied to be sent
                no      yes
             -1.000    1.000    TOTAL sacrifice in evidence
                -------------------
   -1.000      65        5        70  no

    1.000       6        3         9  yes
                -------------------
 TOTAL         71        8        79
l = 4.319; df = 1; p = 0.038
```

A1.2.12. Repopulation and reproduction after the Flood

A1.2.12.1. Modes of repopulation after the Flood; the persistence of an older, vegetal cosmogony

In many Flood myth repopulation of the world after the Flood takes places in the following manner. One or two surviving Flood heroes produce (in all sort of varieties of sexual and a-sexual reproduction) a smooth, undifferentiated object, and it is only from that object that children, animals etc. emerge secondarily. The interpretation of this undifferentiated object is not obvious. However, it is clear that in late cosmogonies (like that of the separation of Water and Land, and the separation of Heaven and Earth) much older dispensations continue to shimmer through. One of the latter was the idea that the entire world has a vegetal origin, had grown on a tree. This cosmogony we still encounter in the motif of the tree of life,[156] of the tree of the Knowledge of Good and Evil in paradise (Genesis 2: 17), Buddha's tree of illumination, birth from a cabbage, the Ark as a naturally grown vegetal product (calabash, nut, reed), and from the many vegetal mechanisms to which myths attributes the post-Flood repopulation of the world with animal and human life. Against this background we can recognise the undifferentiated intermediate product as another fruit or tuber from which (without any recognisable reference sexuality, – for the latter has brought forth the terrible Flood) the ancient vegetative cosmogony is revived, in a context where, in fact, that ancient cosmogony had already been supplanted by the separation of Water and Land. We may perceive that the man-made Ark (for instance that of Noaḥ, Utnapishtim, Ziusudra, Athrakhasis, the Flood heroes of the Ancient Near East) in itself appears to be a transformation of the natural Flood refuges such as the calabash, nut and reed. Thus the image of the undifferentiated smooth intermediate product which, *after the Flood* i.e. in some sort of secondary creation, formed a vegetative, a-sexual intermediate step towards the repopulation of the earth, repeats the vegetative imagery of the wooden man-made or naturally grown Ark. *Both images are directly tributary to the older cosmogony which made everything grow from a tree.* Incidentally such motifs are remarkably persistent. Our modern time has seen, in Murray Leinster's science fiction novelette *First Contact* (1945),[157] the image of an extraterrestrial world which is so thoroughly vegetative (even the space ships are some sort of calabashes grown from a tree), that the intelligent beings from that world devour any animal tissue as the greatest possible treat – which becomes fatal, not only to the early astronauts that make first contact with them, but also for their trouser belts and for the upholstery of their spaceship's cabins.

A1.2.12.2. Statistically significant association of repopulation of the world after the Flood being through abnormal reproduction

There is a statistically significant, positive association 'gender trickster-demiurge stated or implied to be female ' / 'post-Flood repopulation stated or implied to have been abnormal'[158] [*abnormal if Flood hero female...; is the Flood also about the imposition of a male dominant social, cultural and religious order?*]

There is a statistically significant, negative association 'post-Flood re-connection between heaven and earth stated or implied to be man-made' / 'post-Flood repopulation stated or implied to have been abnormal'[159]

A1.2.12.3. Statistically significant associations of 'repopulation of the world after the Flood being through a-sexual reproduction'

---

[156] **[add refs, do: FILEM = ref= tree of life, yields a lot of returns]**

[157] Reprinted several times, also in: Leinster, Murray, 1998, First Contacts: The Essential Murray Leinster, Framingham, Massachusetts: New England Science Fiction Association.

[158]
```
gender trickster-demiurge stated or implied to be
           male    female
          -1.000    1.000     TOTAL repopulation stated or implied to be
                                     abnormal
         --------------------
  -1.000     7         0        7 no
   1.000     1         3        4 yes
         --------------------
 TOTAL       8         3       11
l = 8.392; df = 1; p = 0.004
```

[159]
```
re-connection stated or implied to be man-made
           no     yes
          -1.000    1.000     TOTAL repopulation stated or implied to be abnormal
         --------------------
  -1.000    16         4       20 no
   1.000    13         0       13 yes
         --------------------
 TOTAL      29         4       33
l = 4.360; df = 1; p = 0.037
```

There is a statistically significant, positive association human trickster-demiurge / 'post-Flood repopulation stated or implied to be a-sexual' [160]

There is a statistically significant, positive association 'fire stated or implied to have caused the Flood' / 'multiple Flood heroes in evidence stated or implied to be siblings'[161] [this clearly evokes the transformative cycle of elements (= the multiple heroes, amongst them Fire, and Water)]

There is a statistically significant, positive association 'food crops in evidence' / 'post-Flood repopulation stated or implied to have been a-sexual'[162]

There is a statistically significant, positive association 'gender trickster-demiurge stated or implied to be male' / 'post-Flood repopulation stated or implied to have been a-sexual'[163] [to be male ; logically, for the have no womb] – but the latter observation is anachronistic, too much based on modern thought ; a small number of cases yet of interest; this seems another application of the transformative cycle . Could one say that the idea of the Flood myth revolves on a dramatic collapse of the cosmological transformative cycle? In other words, not only is order created through the separation of Land / Water, and not only because the Flood myth as a thought experiment is based on thinking through the separation of Land and Water as a cosmogonic points of departure. Or is this transformative cycle a further elaboration of this cosmology of the separation of Water / Land? Or is that separation Water / Land, as depicted above, a boundary case, a collapse of the cosmic transformative cycle? I am inclined to take the latter view, for if combat and trickster are in Pandora's Box; which I very much doubt, however, this is contradictory] then it stands to reason that also the transformative cycle belongs to Pandora's Box ; yet I have a considerable problem with that idea]

There is a statistically significant, positive association 'earth diver in evidence' / 'post-Flood repopulation stated or implied to have been a-sexual' [164]

---

[160] human trickster-demiurge in evidence

	no -1.000	yes 1.000	TOTAL	repopulation stated or implied to be a-sexual
-1.000	21	0	21	no
1.000	10	2	12	yes
TOTAL	31	2	33	

l = 4.276; df = 1; p = 0.039

[161] fire stated or implied to have caused Flood

	no -1.000	yes 1.000	TOTAL	multiple Flood heroes in evidence who are stated or implied to be siblings
-1.000	20	0	20	no
1.000	14	3	17	yes
TOTAL	34	3	37	

l = 4.980; df = 1; p = 0.026

[162] food crops in evidence

	no -1.000	yes 1.000	TOTAL	repopulation stated or implied to be a-sexual
-1.000	18	3	21	no
1.000	6	6	12	yes
TOTAL	24	9	33	

l = 4.812; df = 1; p = 0.028

[163] gender trickster-demiurge stated or implied to be

	male -1.000	female 1.000	TOTAL	repopulation stated or implied to be a-sexual
-1.000	1	3	4	no
1.000	7	0	7	yes
TOTAL	8	3	11	

l = 8.392; df = 1; p = 0.004

[164] earth diver in evidence

	no -1.000	yes 1.000	TOTAL	repopulation stated or implied to be a-sexual
-1.000	21	0	21	no

the rationale behind a-sexual and abnormal reproduction in post-Flood repopulation of the earth: modes of repopulation after the Flood; the persistence of an older, vegetal cosmogony

statistical associations of post-Flood a-sexual reproduction being specifically through stones

There is a statistically significant, positive association 'Flood hero stated or implied to be ally of the Flood causer' / 'post-Flood re-population stated or implied to be through stones'[165]

A1.2.12.4. Statistically significant association of post-Flood repopulation being through normal reproduction

There is a statistically significant, positive association 'post-Flood repopulation stated or implied to be through normal sexuality' / 'separation of Water and Land in evidence'[166]   [both not archaic]

There is a statistically significant, negative association 'post-Flood repopulation stated or implied to be through normal sexuality' / 'shape-shifting in evidence'[167]

There is a statistically significant, negative association 'trickster-demiurge in evidence' / 'post-Flood repopulation stated or implied to be through normal sexuality':[168]

There is a statistically significant, negative association between 'animal trickster-demiurge in evidence', and 'post-Flood repopulation stated or implied to be through normal sexuality':[169]

```
    1.000        10         2         12 yes
              --------------------
 TOTAL          31         2         33
l = 4.276; df = 1; p = 0.039
```

[165] Flood hero stated or implied to be ally of Flood causer:
```
               no        yes
             -1.000    1.000     TOTAL repopulation stated or implied to be from
                                        stones
              --------------------
   -1.000       22        15       37 no
    1.000        0         3        3 yes
              --------------------
 TOTAL          22        18        40
l = 5.091; df = 1; p = 0.024
```

[166] repopulation stated or implied to be normal
```
             no    yes
           -1.000  1.000     TOTAL separation of the waters in evidence
            --------------------
   -1.000      3      0        3 no
    1.000      0      2        2 yes
            --------------------
 TOTAL         3      2        5
l = 6.730; df = 1; p = 0.009
```

[167] repopulation stated or implied to be normal
```
             no    yes
           -1.000  1.000     TOTAL shape-shifting in evidence
            --------------------
   -1.000     18     10       28 no
    1.000      5      0        5 yes
            --------------------
 TOTAL        23     10       33
l = 3.987; df = 1; p = 0.046
```

[168] trickster-demiurge in evidence
```
             no    yes
           -1.000  1.000     TOTAL repopulation stated or implied to be normal
            --------------------
   -1.000      7     16       23 no
    1.000      9      1       10 yes
            --------------------
 TOTAL        16     17       33

l = 10.949; df = 1; p = 0.001
```

[169] animal trickster-demiurge in evidence
```
             no        yes
           -1.000    1.000     TOTAL repopulation stated or implied to be normal
```

There is a statistically significant, negative association 'the motif of trickster-demiurge and murder is in evidence' / 'post-Flood repopulation stated or implied to be through normal sexuality'[170]

There is a statistically significant, negative association 'post-Flood repopulation stated or implied to be a-sexual' / 'post-Flood repopulation stated or implied to be through normal sexuality'[171]

With this insight in t he central place of the cosmic transformative cycle in Flood myths we may also understand the fire problematics which surfaces in this context all the time:

- fire as alternative to water in cosmoclasm
- fire as prohibited after the Flood

The idea that water has extinguished all fire is a rationalisation (possible already of the narrators, certainly of the analysts). In fact, what we have here is:

- fire ← the alternative Flood
- water ← Flood
- wood ← Ark
- air ← separation of heaven and earth, bird
- earth / metal ← the mountains as refuge, as resulting from the Flood, or as natural reconnection of heaven and earth

yes it is a narrative that has nothing to do with reproduction, but once the awareness of t he old cosmological transformative cycle has been lost, one can re-tell the story in terms of reproduction in order to retain and transmit it – for at that relatively late stage one still realises (probably on the basis of persisting ritual) that what is involved is an important myth, but the true nature of the myth is no longer understood. This means that my entire concentration on post-Flood reproduction, in the data entry, may well have been a red herring.

A1.2.12.5. Statistically significant association of the Flood hero personally engaging in repopulation of the world after the Flood

statistically significant associations of 'Flood hero stated or implied to repopulate after the Flood'

There is a statistically significant, negative association 'human trickster-demiurge in evidence' / 'Flood hero stated or implied to repopulate' :[172] [*Yes, the Flood hero; as trickster, specifically?*] *should not at all be occupied*

```
           --------------------
  -1.000       15        8        23 no
   1.000       10        0        10 yes
           --------------------
 TOTAL         25        8        33
l = 6.834; df = 1; p = 0.009
```

```
170  motif of trickster-demiurge and murder in evidence
              no     yes
            -1.000   1.000      TOTAL repopulation stated or implied to be normal
           --------------------
  -1.000       15        8        23 no
   1.000       10        0        10 yes
           --------------------
 TOTAL         25        8        33
l = 6.834; df = 1; p = 0.009
```

```
171  repopulation stated or implied to be abnormal
              no     yes
            -1.000   1.000      TOTAL repopulation stated or implied to be normal
           --------------------
  -1.000       11       12        23 no
   1.000       10        0        10 yes
           --------------------
 TOTAL         21       12        33
l = 11.421; df = 1; p = 0.001
```

```
172  human trickster-demiurge in evidence
              no     yes
            -1.000   1.000      TOTAL Flood hero stated or implied to repopulate
           --------------------
  -1.000       19        7        26 no
   1.000       34        1        35 yes
```

with repopulation. The Flood hero as trickster is simply the cosmological transformative cycle; the emphasis on reproduction (e.g. in Genesis 10) is a later development, after the idea of a transformative cycle had been lost.]

There is a statistically significant, negative association 'Flood hero stated or implied to repopulate' / 'combat between Flood hero and Flood causer in evidence':[173] [*I have already said something on the importance of ridicule. On second thoughts, what seems to be ridiculed is the modernist, verticalist, providentialist conception of a process (the Flood) that in fact is based on an unavoidable and fundamental structure of reality, notably the transformative cycle, which is completely amoral and essentially impersonal. Yet the Flood hero persists in his actions, he ignores the ridicule, for he is the pioneer of a post-cyclical, linear historical world image. It is in Flood myths that history comes into being. Thus also in Ovid and in Genesis. ; as if standard heterosexual procreation also presupposes a 'standard' transcendent god and a human being who is unequal to and subservient to that god*]

There is a statistically significant, negative association 'Flood hero stated or implied to repopulate after the Flood' / 'ridicule in evidence' [174](

There is a statistically significant, negative association 'earth diver stated or implied to end the Flood' / 'Flood hero stated or implied to repopulate' :[175] [*Flood hero stated or implied to repopulate after the Flood ; The idea that the Earth Diver ends the Flood must then be taken very literally:*

$$\text{Water} \longrightarrow \text{Earth}$$

$$\text{element}_{n-1} \longrightarrow \text{element}_n$$

There is a statistically significant, **negative** association: 'Flood hero stated or implied to direct earth diver' / 'Flood hero stated or implied to repopulate':[176] [*688: in the Earth Diver the old transformative cycle (although in*

```
              --------------------
 TOTAL          53         8          61
l = 8.033; df = 1; p = 0.005
```

[173] combat between Flood hero and Flood causer in evidence
```
                no      yes
             -1.000    1.000      TOTAL Flood hero stated or implied to repopulate
              --------------------
   -1.000        7         3         10
    1.000       14         0         14
              --------------------
 TOTAL          21         3         24
l = 5.868; df = 1; p = 0.015
```

[174] Flood hero stated or implied to repopulate
```
                no      yes
             -1.000    1.000      TOTAL ridicule in evidence
              --------------------
   -1.000        3        12         15 no
    1.000        5         2          7 yes
              --------------------
 TOTAL           8        14         22
l = 5.453; df = 1; p = 0.020
```

[175] earth diver stated or implied to have ended Flood
```
                no      yes
             -1.000    1.000      TOTAL Flood hero stated or implied to repopulate
              --------------------
   -1.000       22         4         26 no
    1.000       35         0         35 yes
              --------------------
 TOTAL          57         4         61
l = 7.204; df = 1; p = 0.007
```

[176] Flood hero stated or implied to direct earth diver
```
                no      yes
             -1.000    1.000      TOTAL Flood hero stated or implied to repopulate
              --------------------
   -1.000       22         4         26 no
    1.000       35         0         35 yes
              --------------------
 TOTAL          57         4         61
l = 7.204; df = 1; p = 0.007
```

mutated form) is yet too much present than that there is room for normal reproduction. [this kind of relationships can only be understand as a perversion of the transformative cycle

One can take the distribution area of the Earth Diver, as reproduced by Villems, as just another indication of the geographical distribution of the postulated, original system of the cosmological transformative cycle.
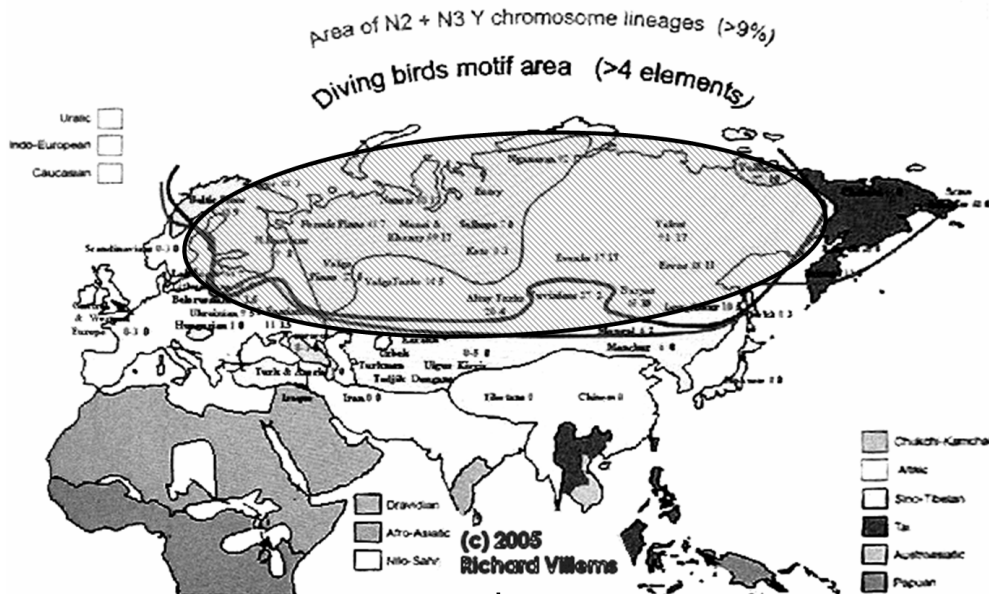
Fig. 2. Richard Villem's (2005) correlation (hatched oval as added by me – WvB) of the diving birds motif core area (> 4 part motifs) with the area of N2 + N3 Y chromosome lineages

A1.2.12.5. Incest in Flood myths

A1.2.12.5.1. The Flood caused by the discovery of sexuality?

In some Flood myths, notably from Oceania (and also according to a Talmudic tradition as applied to the paradise myth in Genesis) the discovery of sexuality (notably brother-sister incest) was the direct occasion for the end of paradise, in other words for the Flood.

A1.2.12.5.2. Statistically significant associations of 'incest in evidence'

There is a statistically significant, positive association 'incest in evidence' / 'motif of the two children in evidence' [177]

There is a statistically significant, positive association 'incest in evidence' / 'Flood rescue device stated or implied to be natural', [178]

---

[177]
```
incest in evidence
              no       yes
           -1.000    1.000      TOTAL two children in evidence
           --------------------
  -1.000     61         1         62 no
   1.000     14         3         17 yes
           --------------------
 TOTAL       75         4         79
l = 5.577; df = 1; p = 0.018
```

[178]
```
incest in evidence
              no       yes
           -1.000    1.000      TOTAL Flood rescue device stated or implied to be natural
           --------------------
  -1.000     68         2         70 no
   1.000      7         2          9 yes
           --------------------
```

There is a statistically significant, positive association 'incest in evidence' / 'multiple Flood heroes in evidence who are siblings'[179]

There is a statistically significant, positive association 'Flood hero stated or implied to repopulate after the Flood' / 'incest in evidence'[180]

There is a statistically significant, **negative** association 'incest in evidence' / 're-connection between Heaven and Earth stated or implied to be man-made':[181]

*A1.2.12.5.3. Statistically significant associations of **sibling** incest in Flood myths*

There is a statistically significant, positive association 'sibling incest in evidence' / 'motif of the two children in evidence' [182] [*If the Two Children are identical to Heaven and Earth, and if incest is their game, then the chain / celestial axis is in the first place the penis of Geb (not Shu, that is the father), which units Heaven and Earth. The Two Children's sibling incest is also, in its own right, a re-connection of Heaven and Earth. In Egyptian mythology this theme of the Two Children has no longer the connotations of a Flood myth (although it could be read as a detectable transformation of one, work out). But we must be prudent on this point: once turned into narrative, the incest motif is capable of detaching itself from Heaven and Earth, and of taking on a life of its own.*]

A1.2.13. The earth diver

A Flood motif that is common in North-eastern Asia and in the New World but not generally known in Europe, is that of the earth diver (NarCom 26: 'The Earth diver'). This is a rodent-like creature that obviously survives the Flood, and that terminates the Flood by diving up a clod of earth, which becomes dry land again by blowing (cf.

```
 TOTAL         75         4          79
l = 3.961; df = 1; p = 0.047


[179] incest in evidence
                no         yes
              -1.000     1.000     TOTAL multiple Flood heroes in evidence who are stated or
implied to be siblings
              --------------------
   -1.000       20         0        20 no
    1.000       14         3        17 yes
              --------------------
 TOTAL         34         3         37
l = 4.980; df = 1; p = 0.026


[180] Flood hero stated or implied to repopulate
                no         yes
              -1.000     1.000     TOTAL incest in evidence
              --------------------
   -1.000       26         31       57 no
    1.000        0          4        4 yes
              --------------------
 TOTAL         26         35        61
l = 4.652; df = 1; p = 0.031


[181] incest in evidence
                no         yes
              -1.000     1.000     TOTAL Flood rescue device stated or implied to be man-made
              --------------------
   -1.000       41         4        45 no
    1.000       34         0        34 yes
              --------------------
 TOTAL         75         4         79
l = 4.663; df = 1; p = 0.031


[182] sibling incest in evidence
                no         yes
              -1.000     1.000     TOTAL two children in evidence
              --------------------
   -1.000       62         0        62 no
    1.000       14         3        17 yes
              --------------------
 TOTAL         76         3         79
l = 9.666; df = 1; p = 0.002
```

the Spirit which hovers over the waters in Genesis 1, and which is blown into the clay doll in Genesis 2: 7;[183] but also cf. the birds[184] which – as if they were transformed earth divers – are sent out by Noaḥ (Genesis 8: 6-12) in order to ascertain if the earth has already fallen dry). The earth diver appears to be a narrative personification of the emergence of Land from the Primal Waters.

If this is correct, the earth diver appears to be an ancient and independent mythical motif, whose appearance in Flood stories is due to the fact that Flood stories, as a dominant and popular genre, have absorbed other Narrative Complexes and pressed them into service. When there is a personal Flood hero, earth diver generally appears as subservient to that Flood hero – it is then on the latter's command that the earth diver brings up the clod of earth. More seems to be involved here than the subordinate joining of mythical motifs. A process can be observed in the course of which animals are supplanted by humans as the protagonists in cosmogonic stories including Flood myths: originally acting as an agent in his own right (as a theriamorphic – animal-shaped – condensation of the emergence of Land from the Primal Waters), in a narrative context where animals are self-evidently assumed to have been the first conscious beings (the original totems?), a new concept of humankind and agency (which I tend to situated in Neolithic or Bronze Age times, but more reflection is need on this point) makes humankind assert itself as master of the creation (cf. Genesis 2).

Fig. 3. Bill Reid, 'Raven meets the first humans' (commissioned by, and now on display at, the Museum of Anthropology, University of British Columbia, Vancouver)

By the same token there is a statistically significant association between animal survival and blowing being in evidence in the Flood story:

A1.2.13.1. Statistically significant associations of 'earth diver in evidence'

---

[183] These two verses, *inter alia*, suggest that the whole of Genesis 1-12, and not just the chapters 6-10, may be read as one elaborate Flood myth.

[184] First a raven, then a dove (Genesis 8:7 f.). A Talmudic story relates how the Raven accuses Noah of coveting Mrs Raven sexually and therefore (foreshadowing King David's treatment of his general Uriah) tries to send her husband to his death. Note the prominence of Raven as a trickster in North-West Coast Native American mythology. The affinity with Flood stories is e.g. brought out by the famous sculpture by the Haida-European sculptor Bill Reid, 'Raven meets the first humans' (commissioned by, and now on display at, the Museum of Anthropology, University of British Columbia, Vancouver) (Fig. 4).

There is a statistically significant association between NarCom 26: 'The Earth diver' [in evidence] and 'world region'[185][186]

There is a statistically significant, positive association 'combat in evidence' and 'earth diver in evidence' [187] [Yes, very well to be understood from the cosmological transformative cycle, but much depends on the strategic introduction of that idea. Let me first confront the reader with the apparent absurdity of such relationships.]

 # There is a statistically significant, positive association 'human trickster-demiurge in evidence', and 'earth diver in evidence'[188]

There is a statistically significant, positive association 'earth diver in evidence' / 'first conscious beings stated or implied to be animals'[189] - [*NOT implication: the earth diver is an animal itself but need not have been among the 'first conscious beings'*]

There is a statistically significant, positive association 'earth diver in evidence' / 'Flood hero stated or implied to be that by virtue of knowledge'[190]

---

[185] Since N=79 and therefore cell values tend to be small, it is in general unadvisable to break the data down for the entire 12 (sub-)continents that it would be meaningful to distinguish from a point of view of comparative mythology: Australia, Europe, Meso America, North America North and East Asia, the Near East, New Guinea, the Pacific, South America, South Asia, South East Asia, and sub-Saharan Africa. **[adjust order]** . Such a twelve fold division is given by the variable Continent. A more aggregated division is given by the variable Aggregated Continent, where various significant regions are combined to leave six divisions that are still meaningful from a point of view of comparative: Australia with New Guinea; North America with North and East Asia; Africa with Europe and with West and South Asia; leaving Meso America, South America and South East Asia as before.

[186]
```
earth diver in evidence ( = NarCom XXX)against world regions:
        world regions
        Australia   Meso      North      South    South East  West and
        & Nw Guin   America   America    America  Asia        South of
                              & East Asia                     Old World   TOTAL earth diver
                                                                                in evidence

            ------------------------------------------------------------
 -1.000      6          8        22         10        14          14        74 no
  1.000      0          0         5          0         0           0         5 yes

            ------------------------------------------------------------
 TOTAL       6          8        27         10        14          14        79
l = 11.402; df = 5; p = 0.044
```

[187]
```
combat in evidence
              no      yes
            -1.000   1.000    TOTAL earth diver in evidence
            --------------------
 -1.000      48       26       74 no
  1.000       0        5        5 yes
            --------------------
 TOTAL       48       31       79
l = 9.885; df = 1; p = 0.002
```

[188]
```
human trickster-demiurge in evidence
              no      yes
            -1.000   1.000    TOTAL earth diver in evidence
            --------------------
 -1.000      64       10       74 no
  1.000       2        3        5 yes
            --------------------
 TOTAL       66       13       79
l = 5.307; df = 1; p = 0.021
```

[189]
```
earth diver in evidence
              no      yes
            -1.000   1.000    TOTAL first conscious beings stated or implied to be animals
            --------------------
 -1.000      53        1       54 no
  1.000       3        2        5 yes
            --------------------
 TOTAL       56        3       59
l = 7.029; df = 1; p = 0.008
```

[190]
```
earth diver in evidence
              no      yes
            -1.000   1.000    TOTAL Flood hero stated or implied to be that by virtue of
                                    knowledge
            --------------------
```

There is a statistically significant, negative association 'human agency stated or implied to have caused Flood' and 'earth diver in evidence':[191]

There is a statistically significant, positive association 'earth diver in evidence' / 'Flood hero stated or implied to be that by virtue of knowledge'[192]

There is a statistically significant, positive association earth diver in evidence' / 'post-Flood repopulation stated or implied to have been a-sexual' [193]

A1.2.13.2. Statistically significant associations of the rodent being in evidence

There is a statistically significant, positive association 'rodent in evidence' and 'combat in evidence':[194]   [*understandable : only if both variables are seen as representations of the cosmological transformative cycle*

There is a statistically significant, negative association 'human agency stated or implied to have caused Flood' / 'rodent in evidence':[195] [*yes, for agency is a totally new concept, probably from the Neolithic, it has absolutely nothing to do with the cosmic transformative cycle*]

```
    -1.000       64          2        66 no
     1.000       10          3        13 yes
                 --------------------
 TOTAL           74          5        79
l = 5.307; df = 1; p = 0.021
```

[191] human agency stated or implied to have caused Flood
```
                 no         yes
              -1.000     1.000     TOTAL earth diver in evidence
                 --------------------
    -1.000       48         26        74 no
     1.000        5          0         5 yes
                 --------------------
 TOTAL           53         26        79
l = 4.155; df = 1; p = 0.041
```

[192] earth diver in evidence
```
                 no         yes
              -1.000     1.000     TOTAL Flood hero stated or implied to be that by virtue of
knowledge
                 --------------------
    -1.000       64          2        66 no
     1.000       10          3        13 yes
                 --------------------
 TOTAL           74          5        79
l = 5.307; df = 1; p = 0.021
```

[193] earth diver in evidence
```
                 no         yes
              -1.000     1.000     TOTAL repopulation stated or implied to be a-sexual
                 --------------------
    -1.000       21          0        21 no
     1.000       10          2        12 yes
                 --------------------
 TOTAL           31          2        33
l = 4.276; df = 1; p = 0.039
```

[194] combat in evidence
```
                 no        yes
              -1.000     1.000     TOTAL rodent in evidence
                 --------------------
    -1.000       46         24        70 no
     1.000        2          7         9 yes
                 --------------------
 TOTAL           48         31        79
l = 6.288; df = 1; p = 0.012
```

[195] human agency stated or implied to have caused Flood
```
                 no        yes
              -1.000     1.000     TOTAL rodent in evidence
                 --------------------
    -1.000       44         26        70  no
     1.000        9          0         9  yes
                 --------------------
 TOTAL           53         26        79
```

A1.2.13.3. Statistically significant associations of earth diver being stated or implied to have ended the Flood

There is a statistically significant, positive association 'combat between Flood hero and Flood causer in evidence' / 'earth diver stated or implied to have ended the Flood'[196] [*Therefore, combat is to be conceived not as a struggle between humans and not as a theme from Pandora's Box, but only as the idea of transformation between phases that necessarily and systematically supplant each other in a cyclical process (and even so I doubt whether it was already in Pandora's Box) ; Earth diver: as transformation of combat / adversary ? directing earth diver = winning combat? ; transformative cycle*]

There is a statistically significant, negative association 'earth diver stated or implied to have ended the Flood' / 'Flood hero stated or implied to repopulate' :[197] [*if the earth diver is in evidence (in other words, as a remnant of the original transformative cycle), then the Flood hero is not occupied with repopulation for repopulation has nothing to do with it; what is IT*] *and is only a much later rationalisation*]

 also in the table immediately above very low p values, partly through implication?

A1.2.13.4. Statistically significant associations of the Flood hero being stated or implied to direct the earth diver

statistically significant associations of 'Flood hero stated or implied to direct earth diver'

There is a statistically significant, positive association 'human trickster-demiurge in evidence' / 'Flood hero stated or implied to direct earth diver' [198] [the trickster which has become human and which directs the earth diver (≈ bird): here we capture the metamorphosis (cf. Ovid!) of the transformative cycle into a Flood myth

There is a statistically significant, positive association: 'Flood hero stated or implied to direct earth diver' / 'rank in evidence'.[199]

---

l = 7.741; df = 1; p = 0.005

[196] combat between Flood hero and Flood causer in evidence

```
              no     yes
            -1.000   1.000    TOTAL earth diver stated or implied to have ended Flood
          --------------------
  -1.000      24       3        27 no
   1.000       1       3         4 yes
          --------------------
 TOTAL        25       6        31
```
l = 7.127; df = 1; p = 0.008

[197] earth diver stated or implied to have ended Flood

```
              no     yes
            -1.000   1.000    TOTAL Flood hero stated or implied to repopulate
          --------------------
  -1.000      22       4        26 no
   1.000      35       0        35 yes
          --------------------
 TOTAL        57       4        61
```
l = 7.204; df = 1; p = 0.007

[198] trickster-demiurge stated or implied to be human

```
              no     yes
            -1.000   1.000    TOTAL Flood hero stated or implied to direct earth diver
          --------------------
  -1.000      65      10        75 no
   1.000       1       3         4 yes
          --------------------
 TOTAL        66      13        79
```
l = 7.250; df = 1; p = 0.007

[199] Flood hero stated or implied to direct earth diver

```
              no     yes
            -1.000   1.000    TOTAL rank in evidence
          --------------------
  -1.000      56       1        57 no
   1.000      19       3        22 yes
          --------------------
 TOTAL        75       4        79
```
l = 4.065; df = 1; p = 0.044

There is a statistically significant, positive association 'Flood hero stated or implied to direct earth diver', and 'combat in evidence':[200] t [yes, that is clear by now, thank you!

There is a statistically significant, positive association 'Flood hero stated or implied to direct earth diver' / 'combat between Flood hero and Flood causer in evidence' [201]

There is a statistically significant, positive association 'Flood hero stated or implied to direct earth diver' / 'Flood hero stated or implied to be that by virtue of knowledge':[202] [yes, that is clear by now, thank you!; but probably wrongly coded by me in data entry]

There is a statistically significant, positive association 'animals stated or implied to survive the Flood' / 'Flood hero stated or implied to have directed the earth diver' [203]

There is a statistically significant, positive association: 'Flood hero stated or implied to direct earth diver' / 'a human stated or implied to have saved the animals':[204] [again the later re-forging of the original transformative cycle]

There is a statistically significant, positive association 'earth diver in evidence' / 'Flood hero stated or implied to direct earth diver'[205]

---

[200]
```
    combat in evidence
              no     yes
           -1.000   1.000      TOTAL Flood hero stated or implied to direct earth diver
           --------------------
   -1.000      48      27        75 no
    1.000       0       4         4 yes
           --------------------
 TOTAL          48      31        79
l = 7.818; df = 1; p = 0.005
```

[201]
```
    combat between Flood hero and Flood causer in evidence
              no     yes
           -1.000   1.000      TOTAL Flood hero stated or implied to direct earth diver
           --------------------
   -1.000      24       3        27 no
    1.000       1       3         4 yes
           --------------------
 TOTAL          25       6        31
l = 7.127; df = 1; p = 0.008
```

[202]
```
 Flood hero stated or implied to direct earth diver
              no     yes
           -1.000   1.000      TOTAL Flood hero stated or implied to be that by virtue of
knowledge
           --------------------
   -1.000      65       1        66 no
    1.000      10       3        13 yes
           --------------------
 TOTAL          75       4        79
l = 7.250; df = 1; p = 0.007
```

[203]
```
    animals stated or implied to survive Flood
              no     yes
           -1.000   1.000      TOTAL Flood hero stated or implied to direct earth diver
           --------------------
   -1.000      46      29        75 no
    1.000       0       4         4 yes
           --------------------
 TOTAL          46      33        79
l = 7.283; df = 1; p = 0.007
```

[204]
```
 Flood hero stated or implied to direct earth diver
              no     yes
           -1.000   1.000      TOTAL human stated or implied to have saved animals
           --------------------
   -1.000      64       1        65 no
    1.000      11       3        14 yes
           --------------------
 TOTAL          75       4        79
l = 6.778; df = 1; p = 0.009
```

[205]
```
    earth diver in evidence
              no        yes
```

There is a statistically significant, positive association 'Flood hero stated or implied to direct earth diver' / 'rodent in evidence' [206]

There is a statistically significant, positive association 'earth diver stated or implied to end the Flood' / 'Flood hero stated or implied to direct earth diver'[207]

There is a statistically significant, negative association: 'Flood hero stated or implied to direct earth diver' / 'Flood hero stated or implied to repopulate':[208]

again, as usual, very high levels of significance around the earth diver

A1.2.13.5. Further statistically significant associations of blowing

There is a statistically significant, positive association 'animals stated or implied to survive the Flood' / 'blowing in evidence'[209]

Since the clot which the earth diver has brought up, usually needs to be blown upon in order to dry, the motif of the earth driver is closely associated with that of the Narrative Complex 7 'From the Mouth / Blowing in evidence'. The latter motif also displays the same geographical association as that of the earth diver.

There is a statistically significant, positive association 'blowing in evidence', and 'Flood hero stated or implied to be trickster-demiurge'[210]

```
           -1.000      1.000     TOTAL Flood hero stated or implied to direct earth diver
          --------------------
  -1.000       74          1        75 no
   1.000        0          4         4 yes
          --------------------
 TOTAL          74          5        79
l = 26.655; df = 1; p = 0.000
```

[206] Flood hero stated or implied to direct earth diver
```
             no     yes
           -1.000    1.000     TOTAL rodent in evidence
          --------------------
  -1.000       69        1        70 no
   1.000        6        3         9 yes
          --------------------
 TOTAL          75        4        79
l = 9.719; df = 1; p = 0.002
```

[207] earth diver stated or implied to have ended Flood
```
             no     yes
           -1.000    1.000     TOTAL Flood hero stated or implied to direct earth diver
          --------------------
  -1.000       75        0        75 no
   1.000        0        4         4 yes
          --------------------
 TOTAL          75        4        79
l = 31.659; df = 1; p = 0.000
```

[208] Flood hero stated or implied to direct earth diver
```
             no     yes
           -1.000    1.000     TOTAL Flood hero stated or implied to repopulate
          --------------------
  -1.000       22        4        26 no
   1.000       35        0        35 yes
          --------------------
 TOTAL          57        4        61
l = 7.204; df = 1; p = 0.007
```

[209] animals stated or implied to survive Flood
```
             no     yes
           -1.000    1.000     TOTAL  blowing in evidence
          --------------------
  -1.000       45       28        73 no
   1.000        1        5         6 yes
          --------------------
 TOTAL          46       33        79
l = 4.758; df = 1; p = 0.029
```

[210] blowing in evidence
```
             no     yes
```

A1.2.13.6. Further details of earth diver and birds sent out, miscellaneous

There is a statistically significant, positive association 'bird stated or implied to be sent out' and 'Flood causer stated or implied to be a god' [211] [*the bird is also some sort of demiurge, a connection between Heaven and Earth; = warning ; NB: warning is an example of a connection between Heaven and Earth*] *; and even a god*]

```
          -1.000      1.000     TOTAL Flood hero stated or implied to be trickster-demiurge
          --------------------
  -1.000      57          2        59 no
   1.000       7          3        10 yes
          --------------------
 TOTAL        64          5        69
l = 6.189; df = 1; p = 0.013
```

[211] bird stated or implied to be sent
```
                    no     yes
          -1.000      1.000     TOTAL  causer of Flood stated or implied to be a god
          --------------------
  -1.000      24          0        24 no
   1.000      16          5        21  yes
          --------------------
 TOTAL        40          5        45
l = 8.342; df = 1; p = 0.004
```

Appendix 2. A glimpse of the raw data set (adapted after Isaak 2006)

	each to turn into something in the world below.
number	245
latitude degrees	038
N or S	N
longitude degrees	121
E or W	W
region	10
ethnic group*	Tuleyome Miwok (near Clear Lake, California)
genetic group	3 North and E Asia and Americas
linguistic group	12 Amerind
macro linguistic group	Amerind
source*	Merriam, pp. 138-151
year (CE) source	1993
length	2097
story*	Wekwek, the falcon, visited Wennok Lake, a region new to him, and found many ducks and geese. His grandfather Olle, Coyote-Man, taught him how to make and use a sling. Wekwek went back to the area, killed hundreds of birds, gathered them, and brought them back to Olle. The next day, Wekwek saw Sahte, Weasel-Man, coming and going and was curious about him. Wekwek followed Sahte north to Clear Lake and found his home while Sahte was out. He found several sacks of shell-bead money there and took it all back with him. When Sahte returned, he wanted to find out who stole his money. He set fire to one end of a stick and pointed it in different directions. When it pointed south towards the thief, the flame leaped from the stick and spread southward. Wekwek was concerned when he saw that the country to the north was on fire, and he told Olle. Olle knew the reason for the fire, but he said only, "the people up there are burning tules." when the fire came close so that Wekwek thought they would soon burn, he confessed to Olle that he had stolen the money and hidden it in the creek. Olle then took a sack from his roundhouse and beat it against an oak tree, creating fog. He beat another sack against the tree, causing more fog, and then rain. He said the rain would last for ten days and nights. The rain covered all the land except the top of Mount Konokti. Wekwek flew around in the rain and eventually found that refuge. On the tenth day, the rain stopped, and the water started going down. After about a week, the land was bare again. At that time, there were no real people in the world. Olle took the feathers of the geese that Wekwek had killed at Wennok Lake. They traveled over the country, and whenever they found a good site, Olle laid two feathers side by side. The next morning, each pair of feathers had turned into a man and a woman. Later, Wekwek commented to Olle that the people had no fire, and Olle sent Wekewillah, the Shrew-Mice Brothers, to steal fire from Kahkahte, the Crow, who had it at his roundhouse. They succeeded, and Olle put the fire in the buckeye tree.
number	250
latitude degrees	044
N or S	N
longitude degrees	122
E or W	W
region	10
ethnic group*	Shasta (northern California interior)
genetic group	3 North and E Asia and Americas
linguistic group	12 Amerind
macro linguistic group	Amerind
source*	ClARK, p. 12
year (CE) source	1953
length	513
story*	Coyote encountered an evil water spirit who said, "there is no wood" and caused water to rise until it covered Coyote. After the water receded, Coyote shot the water spirit with a bow and ran away, but the water followed him. He ran to the top of Mount Shasta; the water followed but didn't quite reach the top. Coyote made a fire, and all the other animal people swam to it and found refuge there. After the water receded, they came down, made new homes, and became the ancestors of all the animal people today.
number	255

latitude degrees	045
N or S	N
longitude degrees	121
E or W	W
region	10
ethnic group*	Pomo (north central California)
genetic group	3 North and E Asia and Americas
linguistic group	12 Amerind
macro linguistic group	Amerind
source*	Roheim, pp. 153-154
year (CE) source	1952
length	607
story*	One day, the thunder people found trout in their spring. At first, the people were afraid of them, but driven by hunger, the people ate them, except for three children who were warned by their grandmother not to eat them. The next morning, all but those three children had been transformed into deer. The children went to a very high mountain. Rain came and flooded all but the mountaintop. The children asked an old man what he could do; he said he didn't know, but he dug all night while the children slept. In the morning, he woke the children. The flood was gone, and the world was beautiful.
number	260
latitude degrees	033
N or S	N
longitude degrees	115
E or W	W
region	10
ethnic group*	Havasupai (lower Colorado River)
genetic group	3 North and E Asia and Americas
linguistic group	12 Amerind
macro linguistic group	Amerind
source*	Alexander, 1916, p. 180
year (CE) source	1916
length	371
story*	Two brothers feuded, and Hokomata angrily sent a deluge which destroyed the world. Before it came, though, Tochopa sealed his daughter Pukeheh in a hollow log. She emerged when the flood subsided. She bore a son, fathered by the sun, and a daughter, fathered by a waterfall; these two repopulated the world. Havasupai women are called "daughters of the water".
number	265
latitude degrees	052
N or S	N
longitude degrees	092
E or W	W
region	10
ethnic group*	Cree (Canada)
genetic group	3 North and E Asia and Americas
linguistic group	12 Amerind
macro linguistic group	Amerind
source*	Frazer, pp. 309-310
year (CE) source	1919
length	1172
story*	Wissaketchak was an old magician. A certain sea monster hated him and, when the old man was paddling his canoe, the monster lashed the sea with its tail, causing waves that flooded the land. Wissaketchak, though, built a great raft and gathered on it pairs of all animals and birds. The sea monster continued its exertions, and the water continued to rise, until even the highest mountain was covered. Wissaketchak sent a duck to dive for earth, but the duck could not reach the bottom and drowned. He then sent the muskrat, which, after a long time, returned with its throat full of slime. Wissaketchak moulded this slime into a disk and floated it on the water; it resembled a nest such as muskrats make on ice. The disk swelled, and Wissaketchak made it grow more by blowing on it.

(etc.)

Appendix 3. The data entry form (Filemaker Pro, precoded)

no. 49 49 Yoruba (southwest Nigeria) Yoruba (southwest Nigeria) clean ethnic group delete COMPLETED

region 3 ethnic group latitude ° 007 N N/S longitude ° 003 E E/W

comm

analysis: in beginnign only sky and waters, not primal waters and land; thus also the Greek version -- however, sky = waters above, in fact they are saying: there was only primal waters, no land

CHECK

clean story

At the beginning of time, there was only the SKY, ruled over by the orisha (god) Olorun, and the waters below, ruled by the female deity Olokun. Obatala, an orisha who lived in the SKY, decided to make solid land in the sea. He descended on a gold chain, poured sand on the water, and loosed a HEN to scatter the sand (forming hills and valleys). Obatala named the place where he

varlatitude 7 varlongitude 3
contac1 0 contac2 contac3

NB. for contac2 see SYSTAT file and output 8 ; if contac3="" then let contac3=contac2 so I only score contac3 if I feel it should differ from contac2

process COMPLETED

other NarCom 1 10 The 10
other NarCom 2 0 no 0
other NarCom 3 0 no 0

annotated story

At the beginning of time, there was only the SKY, ruled over by the orisha (god) Olorun, and the waters below, ruled by the female deity Olokun. Obatala, an orisha who lived in the SKY, decided to make solid land in the sea. He descended on a gold chain, poured sand on the water, and loosed a HEN to scatter the sand (forming hills and valleys). Obatala named the place where he came down Ifa. He PLANTed palms, asked Olorun to create the SUN, and, in time, created people from sculpted clay. He gave people tools; they began farming and procreating. Obatala returned to the SKY, but other orishas heard his story and decided to live among people. However, Olokun, orisha of the sea, was ANGERed and humiliated. When Obatala rested in the SKY, she sent waves against the shores of the land, flooding low areas, causing marshes, DESTROYing fields, drowning many people, and threatening to DESTROY all of Obatala's work. The people called to Obatala for help, but he could not hear them, so they went to the orisha Eshu, who lived on EARTH then. Eshu refused to move until they brought him a proper SACRIFICE; then he carried the message to Obatala. Obatala consulted Orunmila, an orisha diviner. He consulted his DIVINING NUTs and determined to handle the problem himself. He went to EARTH and, with his powers, weakened Olokun's waves and dried the land. He stayed on EARTH awhile and taught divining to people. Olokun was still upset and sought a way to humiliate the SKY god. She challenged Olorun to a contest of clothmaking, at which she excelled. Olorun sent Agemo, the chameleon, as a messenger, asking Olokun FIRST to show some of her cloth. Each fabric she showed, Agemo duplicated exactly on his SKIN. Seeing such a power in a mere messenger, Olokun wondered at Olorun's powers and acknOWLedged his greatness.

genetic group 1 African
linguistic group 01 Niger-Kordofanian
macro linguistic group Super-Nostratic

WHICH NARCOMS ARE IN EVIDENCE IN THIS FLOOD STORY?

Narcom	value
91. Narcom1 separation heaven earth	1
92. Narcom2 reconnection heaven earth	1
93. Narcom3 What is in heaven OBSOLETE	
94. Narcom4 Lightning bird and World egg	
95. Narcom5 Mantis	
96. Narcom6 Rescue from ogre	
97. Narcom7 From the mouth	1
98. Narcom8 The stones	
99. Narcom9 The moon	
100. Narcom10 The earth	1
101. Narcom11 Prima waters and the flood	1
102. Narcom12 From the tree	
103. Narcom13 Cosmic rainbow snake	
104. Narcom14 Duality Two children Twins	
105. Narcom15 Spider and feminine arts	1
106. Narcom16 Shamanism / bones	
107. Narcom17 Spottedness / leopard	
108. Narcom18 Honey bees (honey-)beer	
109. Narcom19 Cosmogonic virgin et her lover son	
110. Narcom20 Contradictory messengers bring death	
111. Narcom21 The white god	
112. Narcom22 Astronomy pole halfling	
113. Narcom23 Trickster Raven Coyote	1
114. Narcom24 Raising the corn spirit	
~~115. Narcom25 Cow of heaven~~	
116. Narcom26 Earth diver	
117. Narcom27 Music Orpheus flute reed	
118. Narcom28 Games contests combats	1
119. Narcom29 The four (notably the cardinal directions)	
120. Narcom30 blood as poison menstruation	
121. Narcom31 Tortoise sive turtle	
122. Narcom32 Separation water land	
~~123. Narcom33 Fragmented monster becomes the world or humankind~~	
124. Narcom34 Vagina dentata	
125. Narcom35 The sun	1
126. Narcom36 Fire	
137. Narcom37 Earthdragon mountain volcan	

region2 3 87. surnumerary + 1 yes region3 sub-Sah Africa source Courlander, pp.
88. Complements sive replaces number 50 length 1820
89. Omit from analysis 1 (use)

HULPSOURCE Courlander, pp.
HULPYEAR 1996

A. GENERAL NATURE OF THE NARRATIVE
1. Is this a flood story? +1 yes sourceyear 1996
2. Suggests Judaeo-Christian-Islamic culture contact 0 no 0 -1
3. Social rank/hierarchy c [+1] 1 90. Contact reconsidered: broadly indebted to ANE
4. How many destructions were there 1 just 1 contact needed rethough/rescored
5. Are all destructions just flood + 1 yes 1
~~6. threat of a future flood -1 no~~ HULPNUMBER 49
7. Modes of production in flood story + 1 1 cleannumber 49
8. mention of rope OR CHAIN + 1 yes 1
~~9. Mention of ladder 0 no~~
10. mention of fish -1 no -1
~~11. mention of horse -1 no~~

~~96. Ants mentioned -1 no~~
~~95. Reed / flute mentioned -1 no~~
~~42. mention of cock/HEN/CHICKEN + 1 yes~~
~~13. mention of trident -1 no~~
~~14. mention of pole -1 no~~

Layout #1
Records: 403
Found: 79
Unsorted

Layout #1

10
Records:
403

Found:
79

Unsorted

Layout #1

10
Records:
403

Found:
79

Unsorted

Field	Value					
~~15. mention of needle~~	-1 no					
16. two children/siblings (any age) mentioned	-1 no	-1				
17. dog (wolf, coyote) mentioned	-1 no	-1				
~~20. how dog (wolf, coyote) mentioned~~	0 no					
84. (MUSK)RAT/MOUSE/BEAVER MENTIONED	-1 no	-1				
83. blowing upon/WARMING mud (/corpse)	+ 1 yes	1				
~~24. reassembling bones, TAKING SKIN OFF~~	-1 no					
22. plurality worlds	+ 1 yes	1				
23. hanging from heaven / tree	-1 no	-1				

B. BEFORE THE FLOOD: SETTINGS AND PROTAGONISTS

Field	Value			
24. Nature of SUPERNATURAL protagonists	d [4]	1	0	
25. gender SUPERNATURAL PROTAGONISTS	0 no	0		
26. Who or what sent flood	6 a god	1	-1	
27. reason flood	b [2]	1	-1	
37. Was there a third party involved indirectly causing	+ 1 yes	1		
28. Where was flood before it was unleashed?	b [2] in	1		
29. demiurge / trickster in evidence	+ 1 yes	1		
30. nature of the demiurge / trickster	b1	-1	1	
31. gender demiurge / trickster	-1 male	1		
32. murder (attempt) demiurge/ trickster STATED	-1 no	-1		
~~33. Origin of first humans~~	1 from			
34. Nature first humans (i.e. at time of flood)	e [5]	1	-1	
35. mention of serpent / snake/LIZARD	-1 no	-1		
36. Relation serpent / snake/LIZARD vs flood hero	0	0		

C. THE FLOOD

Field	Value			
18. Duration of flood stated?	-1 no	-1		
19. How many days flood?	0	0		
38. Was the flood universal	3	3		
39. What ended the flood	0 no	0	0	
40. Role of fire/(DROUGHT) in the context of the flood	0 no	0	0	
41. Animals survivors of flood REPORTED	0 no	0		
42. Details animal survivors	0 no	0		
43. people TURN to stone in flood	0 no	0	0	
44. Flood associated with blood	0 no,	0		
45. Flood end of paradise / begin death	0 no	0		

D. THE HERO(ES)

Field	Value					
46. any HERO(ES) (i.e. protagonist not flood)	+ 1 yes	1				
47. Did any living being survive flood [no use to ask]	+ 1 yes	1				
48. WAS THERE ANY PRIOR WARNING OF THE FLOOD?	-1 no	-1				
49. If prior warning, from whom	0 no	0				
82. WARNING OR ARK BUILDING RIDICULED/IGNORED?	0 no	0				
50. Nature HERO(ES)	f [was	-1	1			
51. WHAT FEATURE MADE THE HERO(ES) JUST THAT?	d on	-1	-1	-1	1	
52. Number of HEROES	1 one	-1	1			
53. Gender of HERO(ES)	-1 male	-1				
~~54. Where do(es) HERO(ES) come from~~	0 no					
55. HERO(ES) PARTNER/SIBLING before fld MENTIONED	-1 no	-1				
79. If more heroes, relationship between heroes	0 no	0	0			
56. Relation HERO(ES) vs causer of flood	-2 hero	0	-1			
65. EFFECTIVE rescue device i.e. an Ark?	+ 1 yes	1				
57. Nature of the ark	i	-1	-1	-1		
58. Is flood beginning of mountains. valleys	0 no	0				
59. What gender triggered flood if any	+ 1	1				
~~60. Quality HERO(ES)'s PARTNER/SIBLING~~	0 no					
61. HERO(ES)'s shapeshifting MENTIONED	0 no	0				
62. HERO(ES) (ATTEMPT TO) kill PARTNER/SIBLING	0 no	0				
63. hero(ES) / other protagonist(s) in contest-game-combat	+1 yes	1				
81. details OF THIS contest	g	-1				
~~64. source of strength/weakness HERO(ES)~~	o					

E. AFTER THE FLOOD

Field	Value				
66. How WAS IT KNOWN THAT THE flood stopped	g nut	-1			
67. Fate HERO(ES) after flood	0 no	0	0	0	
68. postflood reproduction	0 no	0	0	0	
69. incest after flood	0 no	0	0		
70. Is earth diver in evidence	-1 no	0			
71. IS earth diver SAID TO STOP the flood	0 no	0			
~~72. Does earth diver contribute to repopulation~~	0 no				
73. Association flood / intoxicating drink?	0 no,	0			
74. Connection after flood	m lfa	1	-1	-1	1	-1
75. Reconnection venerated/SITE OF SACRIFICE?	0 no	0			
76. Evocation diversity of tongues et nations	-1 no	-1			
~~77. After flood, victims restored to life[cf. 07]~~	4 none				
~~78. How animal world repopulated after flood~~	0 no				
80. food crops AFTER/DURING flood mentioned	-1 no	-1			

original 68 value f both sexual and non sexual, check effect on var68b and var68c

[data entry stops at no. 80; lines stricken out in red are initial entry variables which were discarded in later phases of the data entry, and which therefore did not appear in the final data set]